THE BRISTOL
Medico-Chirurgical Journal.

JUNE, 1890.

POST-PARTUM COMPLICATIONS.

Read before the Bristol Medico-Chirurgical Society, April 9th, 1890,

BY

A. E. AUST LAWRENCE, M.D.,

Physician-Accoucheur to the Bristol General Hospital.

MR. PRESIDENT AND GENTLEMEN,—I wish to bring before you to-night some of the abnormal conditions which may arise *after the birth of the child and placenta.* I do not, of course, intend that this paper should be in any way exhaustive of the subject, but simply to lay before you certain post-partum abnormalities which, although not of frequent occurrence, yet occur sufficiently often to merit attention.

There is no doubt but that one complication will present itself to your minds at once; viz., *post-partum hæmorrhage.* Of this I may say that, as I consider the treatment of it should be mainly by *prevention,* I

shall do no more than refer you to a paper I read and published some time ago, upon the "Prevention of Post-partum Hæmorrhage;" and I will only allude under this heading to three valuable items in treatment I find so often overlooked:

1. The thorough clearing-out of the uterus by passing the hand into that organ whenever the amount of blood lost post-partum is abnormal.
2. The splendid results obtained in securing and maintaining uterine contraction by the intra-uterine injection of hot water at 110°, rendering the use of the iron solution scarcely ever necessary.
3. The subcutaneous injection of Bonjean's ergotin into the cellular tissue of the abdominal walls. This mode of injection I have practised for at least fifteen years, and have never seen ill results from it either locally or otherwise.

Secondary post-partum hæmorrhage may be a very serious complication when due to the detachment of a piece of placenta, or a secondary placenta which was not detached at the birth. These separate masses of placenta are known under the name of Placentæ succenturiatæ. I saw one case where, on the tenth day, most alarming hæmorrhage set in; and I removed a distinct lobule of placenta, which I have no doubt was a separate cotyledon, as the medical man assured me the placenta came away whole and entire. The reason of the profuse hæmorrhage was no doubt due to the uterus having shrunk down to a point incompatible with the proper surface for the portion of the placenta left, and hence partial detachment and profuse hæmorrhage.

The removal of the piece of placenta caused immediate arrest of the hæmorrhage.

Concealed Post-partum Hæmorrhage.—I have seen four cases where the child has been born and the placenta delivered, and the patient left at the end of one hour with the uterus well contracted, pulse below 100, and the discharge normal; and yet within three or four hours afterwards I have been called to see these patients apparently dying from hæmorrhage, pale and pulseless, yet no external evidence of hæmorrhage. On removing the binder, the distended abdomen at once gave the clue to the condition, and on passing the hand into the uterus I was enabled to clear out an enormous quantity of coagulated blood; prompt injections of hot water secured uterine contraction, and the women were saved.

I was told of a similar case the other night by Dr. Champneys, of London.

Ruptured Perineum and Labium.—I allude to these cases for two reasons: first, as I have seen three cases where most alarming hæmorrhage occurred from ruptured perineum and labium; and, secondly, to urge the routine practice of stitching up the torn perineum.

I will very briefly allude to one case where a deep laceration of the left labium nearly caused fatal hæmorrhage.

I attended the case myself, and congratulated myself on there being no laceration of the perineum. I left the woman one hour after the labour was over, and she then was all right. I saw her three hours afterwards, and found her very pale and restless. I was told there was no discharge of blood, and there was none on the diaper except a stain; but the woman lay on her left

side, well over on her chest, and the diaper was fixed rather tightly from the perineum up to the pubes. The result of this was, that the blood was directed up on to the abdomen and filled the bed without appearing in the usual place.

The lesson this teaches is, always to insist upon women lying on their *backs*, and not to have any diaper brought up over the external genitals for at least twenty-four hours: let it be placed simply under them, to catch the discharge.

I believe some of the cases of concealed post-partum hæmorrhage I have mentioned were brought about by the women being allowed to lie on their sides. I believe if you put a small pad over the pubes and a very tight binder, and let the woman lie well over on her left side, you will go a long way towards inducing concealed post-partum hæmorrhage—just as you can produce retroflexion post-partum by keeping a woman on her back for three or four weeks with a hypogastric pad and a tight binder.

Post-partum Nausea.—I have seen six cases where the most alarming symptoms have been caused simply by *nausea*, and in all cases free and thorough emptying of the stomach caused all the alarming symptoms to disappear. Two of the women had had chloroform, and four had not.

All the confinements were natural. From about thirty minutes to one hour after delivery the symptoms set in, with a feeling of faintness, giddiness, loss of sight, and general restlessness; no hæmorrhage either external or intra-uterine. Stimulants were freely given both by mouth and hypodermically, but the symptoms persisted, and the state of the patient was most alarming until

suddenly the stomach evacuated its contents—generally a very large amount,—then immediate relief was experienced, and the dangerous symptoms disappeared. These cases are so alarming that I have known very experienced obstetricians utterly at a loss to account for the symptoms, and not at all disposed to think that nausea could produce such a condition.

Shock and Uterine Colic the result of Vaginal Injections.—I have seen several cases where women after their confinements have been doing very well until one day when receiving a vaginal injection from the nurse they have suddenly been seized with acute abdominal pain, shock, and collapse, with several shivering fits. There has always been a distinct connection with the giving of the vaginal injection and the onset of the symptoms. In the majority of the cases all the symptoms have disappeared in twenty-four hours. I believe that the cause is the sudden distension of the uterus by a little fluid which has gained access to it. I do not think it is caused by fluid passing along the Fallopian tubes, as the symptoms disappear so rapidly, and also because I produced exactly the same train of symptoms by letting a Barnes' bag distend in the cavity of the body of the uterus, where it had slipped from the cervical canal. In this case nothing could have passed along the tubes.

I have given up the use of vaginal injections post-partum, and have substituted the use of iodoform pessaries.

I may mention that Dr. Graily Hewit has recently introduced glass tubes for vaginal and intra-uterine injections, especially prepared to allow a free return current by means of a deep groove on the sides of the tubes.

Bladder Cases.—Everyone knows that retention of urine is a post-partum complication in some women; but I do not allude to the cases which we meet with usually, but to some bladder complications which, although uncommon, may yet occur to any of our patients.

First case, due to the bad habit of keeping a woman *persistently* on her left side. I was sent for one evening to see Mrs. B., who had been confined four days. She had great abdominal pain, a freely-fluctuating tumour in the middle line reaching from the umbilicus to the pubes, and a large solid tumour reaching from the crest of the ilium up to her ribs on that side. I was told she passed her water "regularly."

The *regular* passing of water consisted in a more or less persistent dribble.

The *cystic tumour* disappeared on the passing of the catheter.

The *solid tumour* was the uterus, and when the woman was put on her back it assumed its proper position; and as she was allowed to remain on her back, and only had very slight pressure with her binder, there was no more trouble with the water.

The *second* case was rather puzzling; for although the medical attendant suspected bladder distension from the dribbling of urine, yet the evident enlargement of the abdomen was absolutely resonant in front. I found this was the case; but there was a freely-fluctuating abdominal tumour, dull at the sides, but resonant in front. A catheter removed two pints and a half of urine, and the cystic tumour disappeared. There was no doubt here—intestine fixed in front of the bladder.

The *third* case was an over-distended bladder, containing two pints of urine; and yet this woman passed half-a-pint of urine every six hours. I was asked to see her because she evidently had an increasing abdomen, with pain; and the bladder condition was not suspected, as the urine was passed apparently in a normal manner.

I simply mention these cases as they are a little out of the common.

THE SYMPTOMS AND TREATMENT OF OUTGROWTHS FROM THE BACK OF THE TONGUE.

BY

BARCLAY J. BARON, M.B. Edin.,

Physician in charge of the Throat Department of the Bristol General Hospital.

My own observation leads me to believe that in quite a fair proportion of cases of affection of the throat, whether the naso-pharynx, pharynx, or larynx be diseased, we shall find that the back of the tongue is also implicated.

If this be true—and increased experience in the examination and treatment of throat troubles enables me to feel certain that it is so—then we cannot afford to omit the examination of the region in question, if we are to accurately treat such cases.

There is no reason to doubt the homology of structure of the faucial and pharyngeal tonsils with that of the tissue which normally is found in small quantity on the extreme back of the tongue, immediately in front of the epiglottis; and it is with hypertrophy of this tissue, which has been called the "lingual tonsil," that I propose to deal.

In order to examine this region, laryngoscopy is essential, and the mirror should be placed rather higher and nearer the palate than the usual position for an examination of the larynx. Normally we see a few small

irregular elevations on the back of the tongue; but the glosso-epiglottidean ligament and the fossa on either side of it are, except the epiglottis be unusually erect, quite visible, the elevations not materially encroaching on them. When, however, this tissue is hypertrophied, we find large elevations, varying in size from a pea to a large bean, with furrows on the largest ones and clefts between adjacent growths, extending all over the back of the tongue, touching the epiglottis, preventing its rising in phonation, and even so overlapping it as to entirely conceal it in extreme cases. The colour of the outgrowths varies from pink or grey, when they are not inflamed, to livid red or purple when active inflammation is present; and there is always an increase in the size of the veins of the part. The growths are often very numerous, but sometimes a few large ones cover the whole of the back of the tongue.

I have never seen them without their being accompanied by disease in some other part of the throat; usually they are found along with granular pharynx, or hypertrophy of the faucial tonsils; less commonly in cases of laryngeal catarrh, or adenoid growths of the naso-pharynx. The fact of our finding pharyngeal trouble, which accounts for *some* of the symptoms of which patients complain, is very apt to induce us to believe that they are *all* due to the pathological condition of the pharynx; and we are disappointed when we find that, whilst we do all that is right to cure what we think is the only mischief from which the patient suffers, and we see our measures to be successful, yet the case is not concluded, as various disagreeable symptoms are still present. If we then examine and treat the tongue, we shall finish the case satisfactorily; if not, we leave our

patient *relieved* but not cured. On looking back to some failures to completely rid patients of throat troubles who consulted me previous to the time, since when I have never omitted to bear in mind the significance of outgrowths on the back of the tongue, I feel certain that if I could see these patients again I could cure them; and it is with a view to prevent others making the same mistakes in this direction as I have made, that I venture to write this short and imperfect paper.

The symptoms which have induced patients to consult me are very different in different cases.

Several of them have suffered from distinct interference with swallowing; *i.e.*, they have felt that some of the food lodged in the back of the throat, and that the whole of it was not cleanly swallowed. This lodgment is disposed of usually by making extraordinary efforts of deglutition, whereby it is forced into the œsophagus; in other cases patients have told me that they are obliged to hawk until the offending particle is expectorated, and then they are relieved. There is no doubt but that this unpleasant symptom is caused by food being squeezed into the spaces between adjacent growths.

In some of my cases, notably in one very severe one, in which the growths were very large, the food that lodged between the tongue and the epiglottis not only gave rise to an uncomfortable sensation, but caused a terrible feeling of impending suffocation, and the patient adopted severe measures, such as making himself retch, in order to get rid of it. There is no doubt the food crowded the epiglottis down towards the top of the larynx, and prevented its normal rise in order to get air into the lungs; also, I suppose, it set up reflex spasm, which still more tightly shut the epiglottis down. The patient,

a young man, was reduced to living mainly on liquids and very soft solids, and very little even of the latter could be comfortably taken; he was very weak, practically unable to follow his occupation of a shopkeeper, and he had lost nearly 40 lbs. weight when I first saw him, and this in spite of having been treated admirably by Dr. Mackenzie, who kindly brought him to me. After removal of the outgrowths on the tongue, he got quite well, and regained nearly, if not quite, the whole of the flesh that he had lost.

Other patients have come to me complaining of "fulness in the throat," something always behind the tongue that cannot be dislodged, which leads them to "clear up" incessantly, but with no effect. This so-called "fulness" varies with the general health, and acid dyspepsia, constipation, cold damp weather, and excessive talking, as in school-teachers, will distinctly and rapidly increase it; in fact, just the conditions under which a chronically enlarged faucial tonsil will become sore and swell, and give rise to symptoms extra to those which are usually felt, so with hypertrophy of the "lingual tonsil." Within the past few days, one of my cases that was doing exceedingly well under treatment for the removal of these growths, came to me saying that she felt the back of the tongue very much enlarged and painful on movement, and I was able to see that I had to do with an intercurrent subacute inflammation, which entirely put a stop, temporarily, to all operative measures, just as it would do in the case of the faucial tonsil.

In another series of cases, the interference is with pure vocalisation: people who have had good voices, and especially high sopranos, in whom the epiglottis often becomes very erect when high notes are being sung, find

that the sound appears to be crowded down into the larynx, and does not get out with the former ease; the throat becomes fatigued more easily after singing, and they do not sing with their usual pleasure, as they so soon become languid and tired. Here, I take it, the growths impinge on the front surface of the epiglottis, interfere with its assuming the erect position, and thus the exit of the sound from the larynx is impeded, and the result is poor.

Lastly, I have met with one case in which pain of a neuralgic intermittent character radiated from the throat down into the upper part of the chest and over the shoulders, which is quite gone now that the growths have been destroyed. This symptom is possibly explainable if we consider it a reflex phenomenon, similar to what we occasionally see when patients have nasal hypertrophies. Other symptoms have been described by other observers, such as intense pain, bleeding and abscess of the growth, with general fever similar to acute suppuration of the faucial tonsil, but I have no experience of them in my own practice.

As regards the treatment of this troublesome condition, it is very simple and most satisfactory, since it practically always results in cure, provided it be thoroughly carried out.

Having carefully examined all the other parts of the throat, and having treated naso-pharyngeal growths or catarrhal processes, destroyed pharyngeal granulations, removed by cutting or galvano-cautery diseased tonsils, and subdued laryngeal catarrh with suitable inhalations, sprays, brushings, &c., I proceed to apply the galvano-cautery to the tongue-growths. There is one practical point about all galvano-caustic operations in the throat;

and that is, to see that the cautery is neither *white hot*, when it will cause bleeding, nor *black hot*, when it will give rise to a great deal of pain and do very little work, but of *cherry-red heat*, which is quite destructive enough, does not cause much pain, and no bleeding.

I am not in the habit of applying cocain before using the burner, but in very sensitive patients the use of a ten per cent. solution of that drug lessens pain materially, and, what is perhaps of more importance, gives them confidence and induces them to keep their heads quite steady when the circuit is closed and the burning goes on. With reference to the kind of burner to be selected, every individual case must decide this; usually I do very little, and with a small porcelain burner, at the first sitting, in order to estimate the amount of reaction that will take place. I find that it is necessary to be careful not to do too much at the first operation, and to note especially how the epiglottis behaves, since, it being impossible to entirely prevent the heat from radiating on to the anterior surface of this cartilage, where the growth that you wish to burn is nearly or quite in contact with it, you may make it swell and thus give trouble. After I am satisfied that there is no special liability to swelling and inflammation of the epiglottis and surrounding parts, I use a large flat burner, and this is to be applied to the tops of the several growths, or plunged into their substance, and thus sloughing and removal take place.

In some rare instances, where the growths are almost pedunculated, I have with advantage used the electric snare; but there is usually a good deal of irritation caused by one's efforts to accurately adjust it over the growth, and to push it down to the surface of the tongue. After each operation I enjoin rest for the voice, avoidance

of hard or irritating articles of diet, and the use of ice internally and, if necessary, externally; also sucking cocain lozenges, or the use of a cocain spray, keeps down pain and inflammation. From five to seven days must elapse between the operations, and in most instances from five to ten sittings are required to clear away all the growth. When I consider that the galvano-cautery has been sufficiently applied, I prescribe a solution of chloride of zinc, 10 to 15 grains to the ounce of glycerine, as a paint for the tongue and throat.

I am convinced that the use of the electric cautery is the only proper and satisfactory method of treatment, and all attempts to reduce these growths by astringent applications only result in disappointment, because, whilst they may temporarily relieve by bracing up the throat, some slight cause, such as exposure to cold and wet, sore throat, over-use of the voice, catarrh of the stomach, &c., will bring back all the old symptoms in their former intensity. I have done the little operation in a great many cases, and although I have once or twice distinctly burnt the tip of the epiglottis, I have never had a patient come back to me before the appointed time, nor have I ever been sent for to relieve any serious condition, such as obstruction to the breathing or inability to swallow; and I consider the operation to be practically free from danger, if reasonable care be taken.

THE SEQUELÆ OF SUPPURATIVE OTITIS MEDIA.

BY

F. H. EDGEWORTH, B.A., M.B. (Cantab), B.Sc. (Lond.),

Physician to the Bristol Hospital for Sick Children and Women; Scholar of Caius Coll., Cambridge; Late Medical Tutor, Bristol Medical School.

(*Continued from page* 28.)

8 and 9. *Brain abscess.*—The importance of middle-ear disease as a cause of brain abscess is very great; for it is estimated that from 40% to 50% (Gowers, 42%; Barker, 50%) of all brain abscesses which occur without external wound are due to suppurative otitis media. As to the position which an abscess in the brain from ear disease may occupy, statistics have been compiled by Barr from seventy-six cases, showing that—

73% occur in the cerebrum.
19% ,, ,, cerebellum.
4% ,, in both cerebrum and cerebellum.
3% ,, in the pons.
1% ,, ,, crus cerebelli.

Again, in 87% of brain abscesses from ear disease, the abscess is single. Hence, practically, we have to deal with either a cerebral or a cerebellar abscess. Such an abscess is always on the same side of the brain as the ear disease; and a cerebral abscess is almost invariably in the temporo-sphenoidal lobe, whilst a cerebellar abscess is in the lateral lobe of the cerebellum.

The prior ear disease is generally chronic, has often lasted several years, and the determining factor is often deficient drainage. Abscess, then, is usually preceded by, although not dependent on, caries and necrosis of the temporal bone. In rare cases, however, brain abscess occurs in acute suppurative otitis media; and then the abscess is very often acute and very difficult to diagnose. Barker is of opinion that the acute non-fœtid brain abscess is due mostly to pathogenic cocci, which form the characteristic virus of acute suppurative otitis media; whilst in the chronic fœtid abscess, as in the preceding chronic otitis, the virus is almost solely of saprophytic bacilli.

Temporo-sphenoidal abscess.—A temporo-sphenoidal abscess is usually subcortical, arising within the lobe in the white substance, the cortex being little if at all changed. The exact path by which inflammatory changes pass into the lobe is not definitely known. There is a direct means of communication—veins pass from the white substance of the temporo-sphenoidal lobe to the superior petrosal sinus, to the dura-mater over the tympanic roof, and to the neighbourhood of the squamopetrous suture, whilst veins pass to these places from the middle ear. Hence it is supposed that inflammation spreads inwards by means of a retrograde phlebitis; and in some cases of temporo-sphenoidal abscess there have been found old clots in the superior petrosal sinus. But, as this is rare, another and perhaps more probable suggestion is, that the inflammation spreads inwards along the perivascular lymphatics of these veins. A third path has been suggested, by the perivascular lymphatics of the internal carotid artery; for this sends twigs to the middle ear. This view is probably not true of the great majority

of cases; for a cerebral abscess from ear disease is almost invariably in the temporo-sphenoidal lobe, and not in any other portion of the cerebral area supplied by the internal carotid. Whatever the exact path, there arises a local septic inflammation in the lobe; leucocytes are poured out; nerve-elements undergo disintegration; red softening passes into an abscess. Such an abscess may be of any size, from that of a pea to one filling up the whole of the temporo-sphenoidal lobe. Usually, however, its size varies from that of a walnut to a hen's egg.

A second method of formation of a temporo-sphenoidal abscess is by a localised suppurative meningitis—such may be called subdural, in contradistinction to the subcortical form. Inflammation spreads through the tympanic roof; the dura becomes adherent; inflammation progresses through this to the pia-arachnoid. If such an inflammation take place slowly, adhesions may be formed round, so that the meningitis does not become general. The resulting abscess will have one wall formed by the dura mater; the other by the more or less necrosed brain-tissue of the temporo-sphenoidal lobe. Such an abscess, although different in its method of formation, will produce the same results as does that which begins within the cortex. On operation, the distinction between the subdural and subcortical forms can generally be made, but not always; for an abscess which begins subcortically may, in its enlargement, destroy the superjacent cortex.

The abscess which begins as a circumscribed lepto-meningitis will, by reason of its method of formation, be more likely to be associated with general meningitis or sinus-thrombosis than will an abscess which begins subcortically.

The eventual fate of a temporo-sphenoidal abscess is

to cause death, either by extensive softening taking place around it, or, more generally, by its enlarging and bursting into the meninges or lateral ventricle, and so setting up a rapidly fatal meningitis. Fagge estimates that five-sevenths of all temporo-sphenoidal abscesses end by rupture into the lateral ventricle.

The symptoms produced by temporo-sphenoidal abscess depend, in great measure, on its rate of enlargement. For descriptive purposes we may distinguish the following varieties: latent, slowly enlarging, rapidly enlarging, ruptured, abscess.

Whether or not an abscess may always remain latent is doubtful. Cases, in which well-marked symptoms have subsequently arisen, are sometimes preceded by a stage, often prolonged, in which there have been mental hebetude, slight headache, malaise, and occasional vomiting.

By far the most important stage, from a clinical point of view, is that in which a temporo-sphenoidal abscess is slowly enlarging and causing increased intracranial pressure. The results of increased intracranial pressure are extremely characteristic.

The *intelligence* is generally blunted. In several cases there has been noted "slow but perfect cerebration;" *i.e.*, mental processes are performed correctly, but very slowly. As the pressure increases, torpor and drowsiness come on —this passes in the terminal stages into coma and death. *Vomiting* is extremely characteristic—it has all the signs of being "cerebral;" *i.e.*, is without obvious cause, occurs independently of meals, and irregularly, often in paroxysms, and is generally without nausea. It is often associated with exacerbations of the headache. *Slow pulse* is a most significant symptom, more so perhaps than any other. *Headache* is always present; but its position is by no

means always characteristic. In temporo-sphenoidal abscess it may be occipital or frontal, or general, or may spread from the region of the ear over the parietal bone. *Tenderness* on percussion of the skull, over a suspected abscess, is of much more value, especially when pain is not spontaneously complained of in that position.

These symptoms—blunted intelligence, torpor or coma, vomiting, slow pulse—are sufficient to enable one to diagnose a brain abscess in a case of otorrhœa: and if there are no signs characteristic of either temporo-sphenoidal or cerebellar abscess, the former lobe should be first explored; and if no pus be found there, then the latter. The temporo-sphenoidal lobe should be first explored; for brain abscess from ear disease is, as shown above, four times as common there as in the cerebellum.

There are, further, often present certain characteristic symptoms, the cause of which is uncertain or disputed, but the importance of which, when occurring, is great.

Optic neuritis may, as stated above, be present in cases of ear disease, with a total absence of all other cerebral symptoms. It may be present in cases of meningitis, and in cases of sinus-thrombosis. Hence its presence is not pathognomonic of abscess. It, however, most usually, although not always, occurs, and in some cases has been most marked in the opposite eye. The *temperature* in cases of slowly-enlarging abscess is normal or subnormal. This most important symptom is generally thought to be due to increased intracranial pressure. By Barker it is held to be caused by the products of the saprophytic bacilli so characteristic of these slowly-enlarging fœtid brain abscesses.

Barker has also pointed out the importance of two other symptoms—*rapid wasting* and *constipation*. The

importance of the former is, that it occurs without any pyrexia to account for it; it is often associated with a muddy colour of the skin. Constipation, often marked, is most characteristic of uncomplicated abscess or meningitis. If diarrhœa exists, some septic infection has taken place; *i.e.*, complications of the ear disease, other than meningitis and brain abscess, have occurred.

In many cases the temporo-sphenoidal abscess will, as it slowly enlarges, exert pressure on neighbouring motor and sensory convolutions: the effects, more particularly the motor, though they be little marked, are extremely characteristic. Now, the temporo-sphenoidal lobe is only separated by the posterior limb of the fissure of Sylvius from the posterior end of the 3rd frontal gyrus and from the lower ends of the pre- and post-central gyri. Hence, as a temporo-sphenoidal abscess enlarges, it may press on those gyri, on the posterior end of the 3rd frontal, causing, when on the left side, motor aphasia; on the basal ends of the pre- and post-frontal gyri, causing paresis or paralysis of the opposite half of the tongue. If the abscess still further enlarge, it may exert pressure on the posterior end of the 2nd frontal gyrus, causing paresis of the opposite half of the tongue, and on the middle third of the pre-central gyrus, causing paresis of the opposite fingers, hand, wrist, forearm, arm, and shoulder muscles. There is no instance recorded of a temporo-sphenoidal abscess having affected the leg-centres.

Sensory defects, from pressure on neighbouring sensory convolutions, are much rarer. This is probably due to the abscess tending to enlarge forwards rather than upwards and backwards. Pressure on the posterior end of the superior temporo-sphenoidal gyrus will cause transitory deafness of the opposite ear; and if on the left

side, *verbal deafness*, with resulting *amnesic aphasia* (of this only two instances are recorded). Pressure on the occipital lobe will produce *homonomous hemianopsia*, affecting the lateral halves of the retinæ on the same side as the lesion (of this only one instance is recorded).

Affections of the oculo-motor nerves sometimes occur, due to the pressure of the temporo-sphenoidal abscess on them as they lie round the cavernous sinus on the inner side of the anterior extremity of the lobe. Mydriasis, ptosis, paresis of the internal, superior, and inferior recti, and of the inferior oblique, result from pressure on the 3rd nerve; paresis of the superior oblique, from pressure on the 4th nerve. The 6th nerve, from its intracranial course, is less liable than the 3rd or 4th to be pressed upon; but this sometimes happens, paresis of the external rectus resulting.

As to the significance of these symptoms of local pressure, it may be said that their absence, in the presence of the above-described symptoms of general increased intracranial pressure, is of no negative value, but that their presence, even though slightly marked (the paralyses are seldom absolute), together with general symptoms, is absolutely characteristic of a temporo-sphenoidal abscess pressing on these convolutions or nerves.

Acute temporo-sphenoidal abscess will give rise, not only to symptoms of increased general and local intracranial pressure, but also to those due to inflammation of the brain-tissue round the abscess, and these may obscure the former. In addition to the paresis of the opposite half of the body, there will be convulsions of the same parts. And, together with these signs of local irritation, there will be those due to the inflammation: the temperature is high, with delirium and possibly general

convulsions. Such a condition is with difficulty, if at all, diagnosed from general meningitis. The points which may, in some cases, determine a diagnosis of abscess are: the absence of any sign of basal meningitis, but the presence of signs of irritation of, and pressure on, the motor convolutions of one side of the brain only, and possibly the presence of a slow pulse; for this may be present, from increased intracranial pressure, even though the temperature is high. Such points may determine a diagnosis in favour of abscess, and so lead to operation which would probably save life in a case of abscess, whilst it could do no harm in a case of general septic meningitis, which is inevitably fatal.

Meningitis, however may co-exist, with abscess; if it is independent of it from the first, diagnosis is impossible. Meningitis resulting from rupture of an abscess could only be diagnosed if there were a history pointing to the previous presence of a slowly-enlarging abscess.

A bare outline need only be given of the operation for temporo-sphenoidal abscess. In a few cases there has been disease of the overlying bone, with a sinus leading down to the abscess; and Barker thinks these have been for the most part cases of extradural abscess. Almost invariably there is no such external sign of its presence.

The temporo-sphenoidal lobe is readily mapped out on the skull by Reid's lines. Authorities are not exactly agreed as to the best position within this area for trephining. Thus, Macewen trephines vertically above the meatus, whilst Barker does so $1\frac{1}{4}$" behind and $1\frac{1}{4}$" above the meatus. The side of the skull being shaved, and thoroughly cleaned by soap and water, turpentine, and then carbolic lotion, the operation is done with strict

antiseptic precautions. The bone is exposed by cutting a semicircular flap with its base downwards, or by a cruciform incision of the soft parts. The periosteum is reflected with the flap, or separately. A small disk of bone is then removed by a trephine (not more than $\frac{3}{4}''$ in diameter necessary). If the abscess is subdural, the dura will bulge into the opening and fluctuation be detected, and on incision the pus will escape: but if the abscess be subcortical, the dura mater is incised, and the lobe explored by either a hollow needle or a small pair of sinus forceps—the latter is preferable, as the needle is liable to be blocked up by brain-tissue. The abscess being found, the opening into it is enlarged by scraping so as to admit a drainage-tube. Barker recommends for this a portion of a silver catheter, so that the split end can be hammered into a flange, to rest on the outside of the scalp. The flap of soft parts is now sewn up, except where the drain-tube comes out, and an antiseptic dressing firmly applied. If antisepsis be carried out, there is very little risk of a hernia cerebri, and the abscess readily heals.

Cerebellar abscess.—As already stated, a cerebellar abscess from middle-ear disease is always in the lateral lobe on the same side, generally in its anterior part. The etiology and pathological anatomy are very similar to those of temporo-sphenoidal abscess. Veins pass from the internal ear to the inferior petrosal sinus, and from the mastoid cells to the lateral sinus, whilst to both of these sinuses pass veins from within the lateral cerebellar lobe. So that there is a direct path for inflammatory changes to set up a subcortical abscess. Also, a subdural form of cerebellar abscess may arise as the result of a localised suppurative leptomeningitis over the lateral lobe.

The course of a cerebellar abscess varies: it may

slowly enlarge, causing increased general intracranial pressure; later, if not relieved by operation, it will rupture into the meninges, setting up a general septic meningitis. It may rupture early, so that the symptoms hardly at all points to cerebellar abscess; whilst it is very often accompanied from the first by a general meningitis, or sinus-thrombosis, or by both of these, so that its presence is altogether obscured.

Taking, firstly, the case of a slowly-enlarging abscess, this will cause general symptoms precisely similar to those of a slowly-enlarging temporo-sphenoidal abscess; *i.e.*, wasting, slow pulse, normal or subnormal temperature, and, in the latter stages, torpor, deepening into coma. But there will be none of those symptoms peculiar to a temporo-sphenoidal abscess: *i.e.*, aphasia (when abscess is on left side), face and arm paralysis, homonomous hemianopsia, amnesic aphasia (when abscess is on left side), paresis of one or more oculo-motor nerves. And, on the other hand, there will be symptoms indicative of cerebellar lesion, due to the abscess pressing on the middle lobe of the cerebellum. Of these the chief are: reeling gait, with vertigo, and vomiting. Both vertigo and vomiting may occur in a cerebral abscess, but not so markedly; and if either well-marked cerebellar ataxy or severe vomiting be present in a case of otorrhœa, with signs of increasing intracranial pressure and without those peculiar to temporo-sphenoidal abscess, a cerebellar abscess may be diagnosed. The position of headache in cerebellar abscess is either frontal or occipital; its presence is not so characteristic as is tenderness on percussion over the cerebellum. *Optic neuritis* may occur, but rarely as compared with its frequency in cerebral abscess. Two additional symptoms have been insisted

on by some observers. McBride says that absence of bone-conduction of sound on the affected side is characteristic of cerebellar as compared with cerebral abscess, and this because the inflammatory tract passes through the internal ear; the path followed however may be by way of the mastoid cells. Also it has been asserted that tenderness over the mastoid, where general symptoms of a brain abscess exist, points to cerebellar abscess. But even though the inflammatory path be through the mastoid cells, yet cario-necrosis of these does not necessarily exist, any more than it does in the tympanic roof in cases of cerebral abscess. An acute cerebellar abscess will so soon rupture into the meninges, setting up an acute septic meningitis, that no sufficiently characteristic cerebellar symptoms will appear to enable a diagnosis of abscess to be made. Again: if cerebellar abscess be complicated, from the first, by the presence of a general septic meningitis or of a sinus-thrombosis, it will not be possible to diagnose its presence.

Thus it would appear that it is possible to diagnose only cases of uncomplicated slowly-enlarging cerebellar abscess.

The procedure to be followed in opening a cerebellar abscess is similar to that in the case of cerebral abscess. It is necessary to avoid the lateral sinus, and to do this Barker advises trephining 1″ below Reid's base-line, and 1½″ behind the auditory meatus.

ON SOME POINTS IN THE SURGICAL PHYSIOLOGY OF THE ABDOMEN AND PELVIS.*

BY

T. S. ELLIS,

Consulting Surgeon to the General Infirmary at Gloucester.

PHYSIOLOGY, or—as it is still called in Scotland—the *Institutes of Medicine*, has been too much regarded as bearing only, or mainly, on medical practice. *Surgical Anatomy* is an expression very familiar; *Surgical Pathology* hardly less so; and even *Surgical Bacteriology* is the title of a book; but the words *Surgical Physiology* are now, so far as I am aware, for the first time linked together. And yet illustrations are abundant, literally from the head to the foot, of the close relation between the study of function and the practice of surgery. The surgery of the brain depends on accurate knowledge of the functions of that organ in its different parts. So, also, much of the wide domain of ophthalmic surgery is closely related to the functions of the eye. And, if I may be permitted to refer to work of my own, I have shown that deformities of the foot are due to failure of function, and that by renewal of it, in specially marked degree, restoration of form will result. It was my good fortune to receive my physiology at the hands of a surgeon: the teaching of Sir James Paget, in his lectures at St. Bartholomew's, has, I am sure, had a life-long influence on my habit of thought, more than I have at all times been conscious of.

* *Resumé* of an unwritten address delivered to the Gloucestershire Branch of the British Medical Association.

I think, too, that I might say this of a passage in the first book on medicine I ever read. Sir Thomas Watson, in his *Lectures on Physic*, puts among the objects of admiration to be found by contemplation of the human body, "its compensation for inevitable disadvantages." These "compensations" are, as I hold, much more often to be found in free exercise of functions than is generally recognised. It is manifest that, in order to put this free exercise of function into operation without risk of injury, full knowledge of the functions themselves is essential.

The "disadvantages," in respect of strength and stability, "inevitable" in a structure whose different parts move freely on each other, have, in the case of the human body, a "compensation" in that very mobility itself. The muscles which move, in moving sustain. By thus relieving the ligaments on which, in a static condition, the strain falls, an opportunity for recoil and recuperation in those structures is given. This principle, in my view, holds good in respect of the intestines. They are supported by ligament in the form of a mesentery: such support is liable to over-strain: where is the compensation? Mr. Lockwood, in his recent book on hernia, has forcibly directed attention to the "suspensory muscle" contained in the mesentery. Now, in hernia, as in my student-days Mr. Abernethy Kingdon used to insist, a relaxed state of the mesentery is a condition necessary for the protrusion. If, then, it be possible to stimulate the action of the suspensory muscle and so relieve the over-strained ligament, and, in doing so, to shorten it, we have an indication from a surgical point of view. For I take it that the law that muscles, strengthened by action, tend to remain firm and taut when not in use, and that ligament adapts itself to the

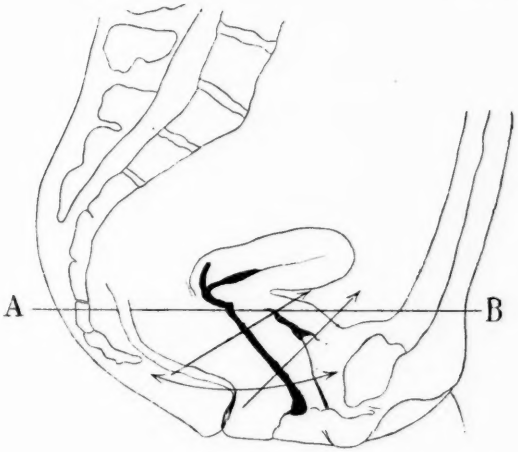
length required, holds good in this as in any other structure. As the muscle is free from any direct control by the will, we can only look for some muscle or muscles, under control of the will, with which it is likely to be associated.

Before I discuss this question further, I would mention another form of prolapse, to which I might have hesitated to apply the term "hernia" if it had not already been so applied. Dr. Herman, in a very interesting paper,* has so designated prolapse of the uterus. It is, indeed, a hernia, a partial protrusion from the combined abdominal and pelvic cavity of that which should be completely within it; and, being a displacement, it is, essentially, a surgical condition. Dr. Herman replies to the important question—What supports the uterus?—"The pelvic floor supports it;" and adds, "This is mainly muscular, and the great muscle in it is the levator ani." Now, if we regard prolapse of the uterus as due to failure of its proper support, and if this support be the levator ani muscle, then we have in more vigorous action of that muscle an indication for treatment. We have little to hope for any action of it that could be directly induced by the will, and the question before us seems to me to be this:—Is there any movement under control of the will with which it is likely to be associated? There are parts, also liable to prolapse, on which the influence of this muscle is more apparent than it is as regards the uterus—the rectum and anus. Moreover, a persistently congested condition of these parts leads to thickening of the tissues and adventitious growth, to hæmorrhoidal tumours. Now, we know that muscular action is a powerful agent in promoting circulation and so relieving congestion. This suggests the question, whether more

* Hunterian Society Oration, *British Medical Journal*, June 1, 1889.

vigorous action of the levator ani might not have an influence on prolapse of these parts and on the painful congestions to which they are liable? Here, too, we have little to hope for any action under direct control of the will; and we must look for movements, under control of the will, with which such action is likely to be associated.

The importance of the levator ani muscle has, I am sure, been much underrated. In Quain's *Anatomy*, its action (with the coccygeus) is given as, to "elevate the



lower part of the rectum and invert its anal border, after the protrusion and eversion which accompany defæcation." I would direct particular attention to it in relation to its line of action across the line of the rectal and vaginal canals. The diagram has been adapted from one in a very interesting paper "On the Rectum and Anus,"* by Mr. Symington. He forcibly points out the

* *Jour. Anat. and Phys.*, vol. XXIII.

importance of regarding the anal and vaginal canals as being closed, collapsed with the sides in contact, and not (as often shown in views of the pelvic organs) open tubes. This condition may, however, be true of the rectum, which, when not containing fæces, may be distended by air. I have drawn across the pelvis an imaginary line AB. The interruptions in that line indicating the rectum and vagina, each of them a distensible canal surrounded by yielding tissues, are, manifestly, elements of weakness in the structure regarded as a support for the parts above. They are "inevitable disadvantages" necessary to meet physiological requirements.

The "compensations" are, as I believe, to be found in the compression and closure of those canals incidental to active movement, and particularly in the movements during which such closure is more especially necessary. This is effected by action of the levator ani muscles, on either side acting together and drawing across the line of the rectal and vaginal canals of which the openings in the line AB form a part. My justification for the arrows in the different directions is to be found not only in another diagram illustrating the same paper, but also in a quotation therein from Mr. Cripps' book on *Diseases of the Rectum*. No one who studies the direction of the different fibres of this muscle can fail to see that, when acting simultaneously on both sides, they "will act powerfully as compressors of the rectum." But, in doing this, they must also compress the vagina. The need of this compression is obvious; for, if it remained, during active motion, in the same relaxed condition as found in the recumbent, flexed position, no one could believe that the ligamentous attachments of the uterus would be at all adequate to prevent it from slipping down the distensible

vagina. I do not, myself, believe that ligamentous tissue alone is ever sufficient for the support of any part or organ. Relief, at least occasional, by muscular action, is everywhere necessary. In the case before us it is afforded by the levator ani.

The position of rest, which I discussed before this Branch twelve years ago, is, speaking generally, one of flexion. I then defined it as that of least tension and of least pressure, where the position of the limbs is a mean between the extremes of motion. The flexed or squatting position is that in which the rectum best allows the contents of the intestine above to pass downwards and itself to be evacuated. This flexion may, for this purpose, be extreme, but extension is incompatible with it. The flexed position is that in which the vagina is most relaxed, as shown in the parturient woman and in examinations of the uterus. If, therefore, it be true that the function of the levator ani muscles, acting with the sphincters, is to lift upwards and to support the pelvic viscera, and to close the pelvic outlets, it is not likely that such action would be associated with the act of assuming the flexed or squatting position. It is more likely to be associated with the act of vigorously springing to extreme extension. To do this fully and repeatedly it is necessary that flexion should alternate with extension, complete relaxation with extreme tension. This is necessary in order that movement to the extended position shall take place in the most vigorous manner. Such movement is always synchronous with the respirations; the inspiration always going with the upward, the expiration with the downward movement.

Anyone who has watched a woodman felling a tree will confirm this. In such work the tool is thrown up-

wards, dragging on the arms as in the Sylvester method of artificial respiration, which thus aids the inspiration. The lungs are fully inflated, inviting, so to speak, the blood from the right side of the heart. The diaphragm, in descending, relieves from strain the ligamentous attachments of the liver, at the same time promoting, by pressure, the onward flow of blood from that organ, which, in turn, is re-supplied by blood from the other abdominal and pelvic viscera. At the same time onward circulation from the lower limbs is promoted by the vigorous muscular action of raising the body and sustaining it for the downward blow. We have here a pretty good illustration of a point always strongly enforced, in his lectures, by Sir James Paget—that we must, in the living body, look for more than one result from any exercise of function. My suggestion is, that with every one of these upward movements, the intestines, the uterus (in the case of a woman), the rectum and anus are, all of them, braced up and tendency to prolapse prevented, by action of the levator ani and sphincter muscles; and that action of the suspensory muscle bracing up the intestinal support is also attendant on each inspiration. The exercise has seemed to me to involve the greatest amount of beneficial influence, mechanically, on the supports of the abdominal and pelvic organs, and, physiologically, on the circulation in them and throughout the body as a whole; as well as promoting the fullest, because the deepest, respiration. Seeing that all this is done without any undue strain on the heart—for the blood is in every way helped onwards —and that it involves no excessive muscular exertion, we need not be surprised that Mr. Gladstone feels himself the better, even at his age, for engaging in such exercise. It involves a vigorous "reaching upwards," which, as I

have said elsewhere,* is "a good thing to do, not only in a metaphorical sense."

Why, in the exercise described, does the inspiration go with the upward movement? and why should the contraction of the levator ani and of the suspensory muscle of the mesentery be supposed to be also attendant on the inspiration? The greatest downward pressure on the abdominal and pelvic organs occurs as the diaphragm descends with the deepest inspirations: then the greatest need exists for closing the pelvic outlets, and so preventing prolapse. With the expiration the abdominal organs are, so to speak, invited upwards to fill the hollow caused by the increased arch of the ascending diaphragm: then there is lessened downward pressure, and consequently less risk of prolapse, less need for closing the pelvic outlets. Contraction of the abdominal muscles is not needed for the upward spring: it is essential to the downward blow. But if the descent of the diaphragm and the contraction of the abdominal muscles were simultaneous, the double pressure on the abdominal and on the pelvic organs, and, through them, on the several outlets, would be excessive. The tendency to prolapse would be much greater, because there would be a persistence of the conditions which exist during efforts of defæcation—conditions which are well known to involve a tendency to hernia or prolapse.

Various considerations point to the probability that the suspensory muscle of the intestine acts with the inspiratory rather than with the expiratory movement, and only slightly, if at all, in any but deep inspiration. Under ordinary conditions there is little downward pressure by the diaphragm on the contents of the abdomen, and these

* *The Human Foot*, page 83.

(the abdominal muscles being relaxed) are free to bulge forwards. In very deep inspirations there is great downward pressure, and the abdominal muscles, though not in action, are drawn upwards by the uplifted ribs and are so rendered tense, thus preventing the abdominal organs from bulging forwards. This is especially the case if there be attendant springing upwards to extreme height, and the more if the arms be also thrown upwards. All this takes place in the exercise under consideration. In full expiration, even if sudden as in coughing, there cannot be any great strain on the supports of the abdominal contents; the abdominal muscles follow on and sustain them as they move upwards with the diaphragm. Not so in deep and, especially, in sudden inspiration. It is true that the liver, lying closely beneath the diaphragm and attached to it in front and behind, moves downwards with it; there can be no strain on the ligamentous support of that organ. With the intestines the case is, however, different; they are attached to the pillars of the diaphragm which do not move downwards, while they are acted on by the downward pressure of the expanded portion which does so move. Thus, while an ordinary inspiration may not involve sufficient movement to cause any strain, a sudden and deep inspiration might cause undue stretching of the mesentery if no provision against it existed. The "compensation" for this apparently "inevitable disadvantage" is, I believe, to be found in the suspensory muscle, which I regard as the provision for relieving the suspensory ligament or mesentery from strain.

This view seems to me to accord with facts coming within our knowledge. It is with the expiratory rather than with the inspiratory effort of coughing that we feel the protrusion into the hernial opening of an incipient

hernia. Unless there be some counteracting influence, why is it that the protrusion is not most felt when there is greatest downward pressure? This must be in the deep inspiration which precedes the cough. It has, moreover, seemed to me remarkable that excessive coughing does not tend to the production nor even to the aggravation of existing hernia nearly so much as might have been expected. Lifting heavy weights and straining efforts at defæcation are much more frequent causes. A case is reported in the *Lancet* of October 5th, 1889, where a hernia long strangulated which had resisted efforts at reduction was, at length, reduced during a cough, and, apparently, by means of it. I could not accept the explanation given: to me it seemed more likely to be due to a contraction of the suspensory muscle. I have noticed in examining boys for hernia that the cremasters act, on coughing, with the inspiration and not with the expiration.

All the facts and considerations arising therefrom, as they present themselves to me, seem to justify the induction of some such laws as these:

(1) Exercises which involve alternate springing upwards to extreme extension, and sinking downwards towards the squatting position (such double movement being associated with full inspiration in springing upwards and full expiration in sinking downwards), tend to cause the most vigorous action of the muscular agencies which support the abdominal and pelvic organs, promoting free circulation in them, and to close the pelvic outlets.

(2) Exercises which involve effort during the maintenance of the flexed or squatting position, or which interfere with free respiration, tend to increase the strain on the supports of the abdominal and pelvic organs and to prevent free circulation in them.

In this I find indications not only for the prevention but for the treatment, with a view to cure, of all of the prolapsed and congested conditions which constitute the several surgical affections mentioned. If it be true that muscles strengthened by use tend to remain firm and taut when not in use; if it be true that the levator ani in action does lift up and compress the rectum and vagina, promoting circulation in, around those parts, and that in sudden and deep inspirations the suspensory muscle of the mesentery does brace up and shorten the ligamentous attachment of the intestine, then, such conditions being fulfilled in the exercise described, the probability is, I think, fairly deducible that such exercise would from the surgical point of view be beneficial.

But, it may be fairly asked, do results justify the deductions made? So far as my experience goes, they do. I have certainly seen cases where hæmorrhoids and the various forms of prolapse mentioned have got well under treatment by special exercise alone. When one induces a law, and deduces a probability from it which, when tested, is followed by the expected result, one naturally regards it as cause and effect. But if I could bring any such number of cases as could in the experience of one man be collected, and if my assurance that no other cause had operated in producing a cure were ever so fully accepted, that alone would not prove my case. We know that these morbid or defective conditions do disappear, and we do not always know why. The recovery is put down to improved health or some other indefinite cause. The question, what forms of exercise will be of benefit and what forms will do harm in a case, say of hæmorrhoids, is often of urgent importance. I know of no recognised principle by which it could be

decided. Nor do I see how any collection of facts, at hazard collected, is likely to decide it. By the "imagination of possible truth," and by testing whether it were reliable, much real and valuable truth has been reached. I think that it is the author of *Rab and his Friends* who has somewhere said that "the human intellect, with a dog-like instinct, hunts best when it has scent." It is for you to say whether my utterances involve a "possible truth" worthy to be tested; whether it be worth while to follow up the "scent" I have endeavoured to show. Permit me to recall the time, fifteen years ago, when I told, at a meeting of this Branch, the story of my own flattened foot, the result of an accident six years before; how it had been cured by exercise, on principles which I endeavoured to indicate. I was, by authority, then told that it could not be, that I must have got well from some other cause. I have lived to see the principle accepted and applied as a standard method of treatment in almost every part of the world. It may seem to be a far cry from flat-foot to hæmorrhoids, or prolapse of intestine or of womb—Dr. Herman has actually compared this last to flat-foot. And, indeed, are they not all instances of relaxation become permanent as a consequence of defective "compensation"? Not without deliberation, but withal in full confidence, I make the prediction now that the time will come when all these conditions will be treated, not by rest and "recumbency," except so far as it is an aid to the more potent agency of well-directed vigorous exercise; when we shall no longer see "recumbency" put first in a list of "remedies which diminish congestion of the pelvic organs," followed by others, none of them having any reference to the physiological agencies which promote free circulation—I quote

the words of one from whom I had been led to expect better things. Two facts only I will state now. The worst and most persistent case of piles I ever knew was in a blacksmith. Here was a case of a healthy man, accustomed to regular, hard, muscular work; yet, although he was of strictly temperate habits, and lived, otherwise healthy, to very old age, he had a malady which is usually associated with sedentary habits. Now his work involved the maintenance of a stooping, semi-squatting position all day. If it could be shown that strikers, who wield sledge-hammers, were specially liable to piles, it would be fatal to my theory. Dr. Soutar, of Barnwood House, has told me of a fellow-student at Edinburgh who, having piles badly, took to throwing the hammer as an exercise, and they speedily disappeared. This is as, theoretically, it should be.

If it be asked whether the subject before us is not rather hygienic than strictly surgical, my answer is, that the scientific surgeon ought to be something more than a mere hand-worker (chirurgeon); he should rather be regarded as one existing for the cure of surgical ailments. John Hunter, whose authority will be recognised, said, in speaking of cancer: "For what I call a cure is an alteration of the disposition, and of the effects of that disposition, and not the destruction of the cancerous parts."* Now we pad, by means of trusses, hernial openings; and prop up, by means of pessaries, prolapsed uteri: but we cannot call such proceedings cures. Nor, as it seems to me, do the so-called radical cures go to the root of the matter. If, too, by constriction or by cutting operation, we bring about a complete "destruction" of a hæmorrhoidal mass or prolapsed rectum; however satisfactory

* Quoted by Sir Spencer Wells in the Morton Lecture.

the result appear, we have no right, on the Hunterian definition, to speak of it as a cure at all. But if the "disposition" be due to defective function, and if by restoring function we remove it, with "the effects of that disposition"; then, as I claim, the definition of a cure is fulfilled.

To the objection that a speedy result is by patients demanded, and that treatment by physiological means would not be accepted because too slow, the answer is, that the necessary seclusion which an operation requires, added to that required for recovery from it, is often a great loss of time. Add to this the interference with health, and the not altogether imaginary risk, and strong inducements still exist for the adoption of treatment other than operative. Moreover, no one suggests that operations can be superseded altogether. Inasmuch, however, or, at least, in so far as we do nothing to "alter the disposition," but only remove the "effects," they do not really result in cures.

The cure of hernia by exercise, although ignored by writers in this country, is by writers on the Swedish movement cure alleged to result from it, but the explanation differs from that which I have given. In *Home Gymnastics*, by Professor Hartelius (translated by Miss Löfving), he states that the "scientific explanation" is "that, by certain movements, the muscles which surround the rupture are strengthened and increased in bulk so as to contract the passage." I cannot accept this as sufficient, although, undoubtedly, the enlarged inguinal canal is diminished by action of the abdominal muscles. It does not, however, remain closed, or even nearly so, during rest, even where the action is habitually vigorous and the development well marked. I am, as already

indicated, much more disposed to believe in the association of these voluntary muscles and of those concerned in respiration with the involuntary suspensory muscle of the mesentery. Both of these have a close association with the peristaltic action of the intestines.

How far a want of "accurate and consentaneous physiological harmony in these co-operating structures" —I quote these words from *Hilton on Rest*—may account for some of the "entanglements" which have, in some cases, been discovered to be the only explanation of peritonitis and intestinal obstruction, is a question of much interest. Is it not possible that a restoration of that harmony may account for the sudden yielding of symptoms otherwise unaccounted for—that the displaced intestines may be restored to proper position by action of the muscular element which, as I contend, is necessary to maintain that position? If this be conceded as possible, then all that concerns this "physiological harmony" comes within the province of the surgeon, and the question, What agency will best promote it? is of great practical importance. The proper place, in treatment, of such agencies as warmth, moisture, dry friction, muscular action, massage, and galvanism—faradic and continuous—calls for study more careful than, so far as books reveal it, has yet been given. *Abdominal Surgery* has come too much to signify *the operative surgery of the abdomen.* It will not be to the credit of our art if the brilliant results in that department attained should divert attention from the study of physiological laws and processes, a better knowledge of which may more often result in the success of other treatment, and render operative interference unnecessary.

Clinical Records.

A CASE OF ACUTE ASCENDING PARALYSIS (LANDRY'S PARALYSIS).

By ARTHUR G. BLOMFIELD, M.D. Aberd.; Physician to the Devon and Exeter Hospital.

THE notes of the following case, which I saw with Dr. Bothwell of Topsham, near Exeter, in December, 1889, may be of interest.

Mr. B., aged 46, has always enjoyed fairly good health; but in June, 1888, was thrown from a trap, which fell on him and loosened some of his teeth, but otherwise he had no injury to his head, and no loss of consciousness.

During the past twelve days he has had a severe attack of diarrhœa, which he attributes to catching cold.

Two days before I saw him in consultation with Dr. Bothwell, while getting out of bed he fell on the floor, but managed to get back into bed, assisted by his son. There had been no warnings—no weakness, no pains, no numbness in his lower limbs—before his legs suddenly "gave way" as he got out of bed. When he got back into bed, he found he was quite powerless in both legs, and he could not move them at any of the joints. Next day both arms became equally useless. There was no difficulty of breathing, and no trouble about the bladder. On the next day I saw him. He lay in bed, perfectly sensible, complaining of *nothing* beyond the complete loss of power in all four extremities. His breathing was regular, and the pulse fairly good. Temperature, 98.6°. All four extremities appeared equally paralysed. He could not

execute the simplest movement with either hand, nor flex the limbs at any of the joints. The fingers were drawn somewhat into the palm. Both lower limbs were similarly paralysed. The reflexes were abolished. There was no ankle-clonus, and there were no tremors. The limbs were well nourished; there was no evidence of muscular wasting, and sensation everywhere was perfect. The abdominal and thoracic muscles were not apparently involved. There is a distinct history of *chronic* alcoholism. We gave him liquor strychninæ, ♏ iii. ter die, and applied warmth to the limbs; and ordered him to have frequent liquid nourishment, but no stimulants.

Dr. Bothwell tells me that he remained in the same state until next morning, when he got rapidly worse, with symptoms of paralysis of respiration, from paralysis of the thoracic muscles; and he died at 5 p.m., consciousness remaining to the last. The total duration, therefore, of his fatal illness was *three* days. There was, unfortunately, no *post mortem;* but, from the character of the symptoms, I think we may fairly consider the case as one of Landry's paralysis. It was of interest to note that a specimen of his urine was taken home for examination at my visit, and was found to have a sp. gr. of 1032, and to contain 21 grains of sugar to the ounce, or 4.8 per cent. Dr. Bothwell tells me that he had not complained of any symptoms suggesting diabetes; but in January, 1889, he had consulted my colleague, Mr. Bankart, for temporary loss of vision, recurring occasionally and lasting a few minutes, and usually relieved by some stimulant. He had smoked a good deal. Mr. Bankart tells me that he found on examining the fundus that the retinal veins were full, and the disc rather pale.

When I first saw the patient, I was inclined to think

that possibly the case was one of wide-spread peripheral neuritis, more especially from the history given of chronic "nipping." However, many of the characteristic symptoms of this latter affection were absent, and the rapid development of the paralysis without fever, pain, or loss or alteration of sensation, and without wasting of the muscles, justifies us in concluding that the case was really one of acute ascending paralysis. Reference has recently been made to the association of diabetes and neuritis, and it would be of interest to know whether other observers have noted the association of glycosuria and acute ascending paralysis as in this case.

CASE OF "ORBITAL ANEURISM" TREATED BY LIGATURE OF THE CAROTID.

By A. W. PRICHARD, M.R.C.S.; Surgeon to the Bristol Royal Infirmary.

In 1887 I recorded in the *Bristol Medico-Chirurgical Journal* a case of aneurism of the orbit, in which the symptoms were very much ameliorated by ligature of the carotid. That patient is still alive, and suffers very little inconvenience from the slight noise which he still hears in his head, and which sound is easily audible to anyone applying a stethoscope to the temporal region on the affected side. I now bring forward another case.

J. M., a short, spare man of 30, but who looks considerably older, came under my care last November with the following history: On September 10th last, while at work at Mr. Christopher Thomas' soap works, he fell from a stool and struck the back of his head. The fall stunned him, but he quickly came round; and although a small lump appeared behind the left ear, he was able to con-

tinue at work for the next two weeks. The small swelling went away with bathing; but a pain persisted. Fifteen days after the fall he felt something snap just external to his left eye, and a whizzing noise began in his left ear. This noise, he says, gradually increased in intensity. He became very unwell just after the sound commenced, and had to stay in bed, complaining of weakness and nervousness, loss of appetite, and considerable pain in the left side of the head, which was relieved by poultices.

He presented himself at the Bristol Eye Dispensary on November 9th, complaining of double vision. There was slight prominence of the left eyeball, and a difficulty in moving it; some swelling of the lids, and a good deal of conjunctival irritation. The retinal veins were distinctly full in comparison with those of the right eye, and there was a very slight pulsation of the globe. He suffered pain all along the left side of the head; and a bruit could be heard on the left side of the head and on the eye, this bruit then being loudest over the base of the mastoid.

He was given 10 gr. of iodide of potassium three times a day.

For two months I kept him under observation; and although the pain and annoyance to the patient of the sound in his head lessened, still the proptosis increased, and the bruit and pulsation became more marked, and a distinct thrill could be felt in the upper eyelid, and he became somewhat deaf in his left ear. Under these circumstances, I took him into the Infirmary, with a view to further proceedings.

On admission he was found to have good vision in both eyes; the movements of the eyeball tolerably free, but not in accordance with those of the other; the eyeball was advanced $\frac{3}{8}$ of an inch, and the conjunctiva inflamed.

The veins of the left side of the face and temple were fuller than those of the right. The pupils were of the same size; but the movements of the iris sluggish on the affected side. The bruit was very loud, and heard all over the head; louder on the left side, and loudest at a point on the forehead immediately over the centre of the orbit. It was generally louder over the sinuses of the dura mater than on other parts of the skull. The bruit quite disappeared when the carotid artery on that side was compressed. There was no nerve-symptom. In the heart a presystolic murmur could be heard; the radial pulses were unequal in strength and time, the left being weaker. There was no abnormal temperature, and nothing wrong in the lungs, kidneys, or digestive organs.

As the patient was very much troubled by the unpleasant noise in his head, and urgent that something should be tried, and as the condition was certainly growing worse, on June 21st, after the usual consultation, I tied the left common carotid.

The wound healed very well, and the effect of the operation was in some respects satisfactory. The bruit returned in the evening after the operation, but lessened in a few days, and now, six weeks later, is very limited in its loudness and area, compared with what it was before. Moreover, the patient does not hear it himself: the deafness has gone; the protrusion of the globe is not so marked; and the conjunctivitis and the diplopia are both much better. He has occasionally a little pain in the side of the head.

This case was probably one in which a direct communication occurred between the carotid artery and the cavernous sinus. Though stunned by the fall, he was not taken really ill till he felt a snap inside his head a fortnight later; and then the distressing symptom began.

Possibly by fracturing or jarring the petrous portion of the temporal bone or the sphenoid just in front, the fall injured the carotid in or close to the cavernous sinus, and the snap occurred when the injured vessel gave way. The stream of arterial blood poured into the sinus would greatly interfere with the return from the large ophthalmic vein, which is almost a direct continuation of the sinus, and so cause engorgement of all veins in and in the neighbourhood of the orbit, and œdema of the tissues, and so protrusion of the globe. Moreover, the thrill to be felt in the upper lid, and the pulsation, cannot be easily explained in any other way than by the veins receiving an impulse directly through the communication between the artery and vein; and a strong proof that the sound is caused by such a communication lies in the fact that it could be heard most easily over any of the sinuses of the dura mater, and, therefore, has been conducted more by the blood in the sinuses than by the cranial bones. Also, I think that the partial success of the operation helps to prove that this view of the condition of things is the correct one; for by diminishing the amount of blood sent into the sinus by the artery, the ligature of the carotid ameliorated all symptoms, but the freedom of the collateral circulation prevented the wound between the artery and vein from quite closing.

The result is not perfect: but I found a few days ago that by compressing the other carotid, I could quite stop the bruit; and if the patient at any subsequent time gets worse, I shall put before him the question of repeating the operation on the other side.

On May 15th, when this paper was in the printer's hands, I received information of the death of my patient.

He was at work on the morning of May 15th, and came home at dinner-time, and died suddenly.

Next day I made a *post mortem* examination, assisted by Mr. Ormerod and Mr. Pitt, and found both lateral ventricles and the fourth ventricle full of blood; this was doubtless the cause of death.

On examining the middle fossa of the base of the skull, we found an united fracture of the petrous portion of the left temporal bone running up towards the cavernous sinus. On passing a probe down the artery where it had been cut from the circle of Willis in removing the brain, we could see the probe in the artery through two rounded holes in the wall of the sinus.

The preparation is in the museum of the Infirmary.

CASE OF EPITHELIOMA OF THE BODY OF THE UTERUS.

By J. G. Swayne, M.D., Consulting Physician-Accoucheur to the Bristol General Hospital.*

The chief points of interest in this case are—first, its insidious character; second, its long duration.

The patient (Mrs. B.), from whom this specimen was taken, first consulted me in 1882. She was then 59 years of age, and tolerably healthy in appearance. She consulted me for a dull, aching pain in the sacral region, increased by standing or walking. She had previously been under the care of another medical man, who considered the pain to be due to rheumatism and treated her accordingly. As the pain was not relieved by the remedies used, her friends persuaded her to consult me

* Specimen shown and case read before *Bristol Med. Chir. Soc.*

about it, with the object, principally, of her undergoing an internal examination. On examining her I found the uterus to be healthy in size and appearance, such as one would expect to find in a multipara past the menopause. It was, however, considerably retroflexed, but quite movable, and I had no difficulty in passing a sound and reducing it. I then introduced a Hodge's pessary, with a cushion of india-rubber filled with glycerine at the sacral end; and this gave her so much ease and comfort that she was able to walk about without pain, and, in fact, believed herself to be cured. Although suffering occasionally from the displacement, for the next few years she went on, on the whole, very well, as shown by my visits to her, which in 1883 were only three, none in 1884, eight in 1885, and thirteen in 1886. At the end of 1886, however, a change for the worse seemed to take place, for in 1887 my visits to her mounted up to forty-seven. The fact was that towards the end of 1886 a change had taken place in her general condition. She had become somewhat emaciated, and showed symptoms of constitutional irritation. The uterus instead of shrinking had become larger, especially in the body, and, pressed back more into the pouch of Douglas, it was very irritable—so much so, that I dared not use the sound to replace it; the os was more open, and admitted the tips of the fingers readily, and a thin slightly sanguineous discharge issued from it—which, however, was not offensive. Thinking that it was a case of catarrhus senilis of the uterus, I used periodically uterine injections of nitrate of silver, ten grains to the ounce. This had a very good effect for a time, and there was a good deal of improvement during the year 1888.

She, however, never entirely lost the symptoms

from which she suffered, and in May, 1889, had become much worse, was greatly emaciated, and very despondent about her general condition—so much so, that her friends wished her to go to London for further advice. To this I readily assented, and she accordingly went up to London and consulted Dr. Mathews Duncan. He took much the same view of her case as I did—viz., that it was a case of senile catarrh,—and used uterine injections of nitrate of silver, but of about treble the strength of those which I employed. This benefitted her very much for a time—so much so, that she was able to walk in the Park, and thought herself really cured. Dr. Duncan, however, was not of that opinion; but encouraged by the good effect of the former injections, used one of double their strength. This gave her so much pain, and aggravated her former symptoms so much, that she would not go to him again, but consulted Dr. Priestley. He tried several intra-uterine injections, with some temporary good effect, but no permanent benefit; until at last, with his concurrence, she decided to return home on June 24th last, on which day I received a letter from him, in which he says: "I had great hope, by the way it seemed to yield to intra-uterine injections of tannin and glycerine and of tincture of iodine alternately, that we had only a case of senile catarrh to deal with; but the result of an injection on Friday last raises a suspicion in my mind that there is graver mischief in the uterine cavity. I introduced a silver syringe about two or two and a-half inches within the cervix, with great gentleness, and it gave her no pain, but a gush of hæmorrhage came on immediately, and so severely that I had to put a tampon in the vagina. Since then there is more discharge, again muco-purulent

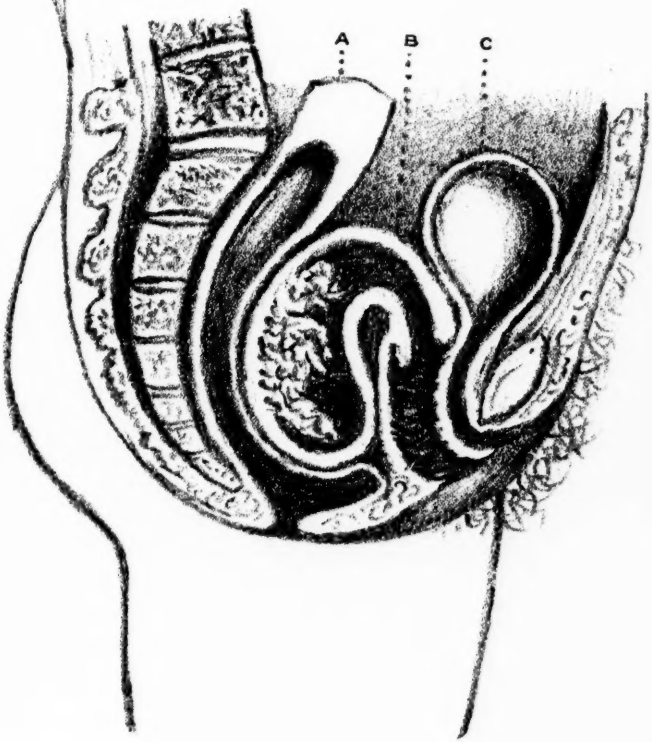
and bloody, and I fear there is an ulcerated surface producing this. Under the circumstances, I think I should scarcely venture to pass a tube into the uterine cavity again at present, but be content with passing a small cotton-wool tampon up to the os uteri, through a small speculum. The tampon can be dipped in glycerine of tannin or matico, and the glycerine—through its capacity of running everywhere—will permeate to the womb cavity. Besides this, a vaginal injection of chloralum in solution might be used every day."

I saw her the day after her return, and was shocked to see the rapid change for the worse in her appearance. Such extreme emaciation had set in, that she was reduced almost to a skeleton; she suffered from extreme mental depression; her stomach was so irritable that she could take very little food; and, in fact, she appeared to be gradually dying of asthenia. Her extreme emaciation brought out a fact which I had not noticed before, and to which she had never directed my attention; viz., that there was very great malformation of the chest, apparently the result of tight-lacing in youth. The cartilages of the false ribs were pressed close together, and the sternum much depressed; so that the heart was pushed out of its normal position to such a degree that its apex could be felt pulsating beneath the left shoulder-blade, instead of in front. Its impulse was very weak, but there was no distinct bruit. The condition of the uterus was much the same as when I last examined her before she went to London. I, therefore, abstained from any active interference with the uterus, and contented myself with carrying out the treatment recommended by Dr. Priestley, more especially in the use of the tannin and glycerine tampons.

A. RECTUM

B. RETROFLEXED UTERUS WITH TUMOUR

C. BLADDER



After seeing her, I pointed out to her relatives her extremely critical condition, and advised a consultation with some physician who might assist me in devising some means of improving the heart's action and nourishing the body more effectually. In accordance with their wishes, Dr. Shingleton Smith was called in, and for the first indication prescribed digitalis, and for the second, the use of peptonised foods. I had not many opportunities of consulting with him, for I had made arrangements to go away at that time for my annual holiday, which I accordingly did, my brother acting as my *locum tenens:* but before I had been absent three weeks I heard of her death; and on my return home I learned that Dr. Shingleton Smith and my brother had attended her to the last, and had finally made a *post mortem* examination, the result of which I now exhibit. The preparation has been preserved in spirit, and has consequently lost its colour; but it shows very well the shape and position of the uterus, and the extent of the intra-uterine tumour. I have copied this as closely as I could, and have represented it in the accompanying diagram.* There were no secondary deposits, either in the parts immediately around the uterus, or in any other part of the body.

In the discussion which ensued, two or three members present suggested that the tumour was adenomatous in character, and might have been removed successfully at an earlier stage by the curette. I did not incline to that opinion; but as no microscopical examination had yet been made, I could not speak positively as to its character. It was, therefore, decided that portions of the tumour should be examined microscopically, by Dr.

* The preparation is now in the Museum of the Bristol Medical School.

Shingleton Smith and Mr. Munro Smith, and the result reported at the next meeting. This was accordingly done, and a good microscopical section, made by Dr. S. Smith, was exhibited at the meeting. They both agreed that the tumour was undoubtedly carcinomatous in character.

REMARKS.—With regard to the progress and treatment of this case, I may state that during the first four years—viz., from 1882 to the end of 1886—no symptoms but those of retroflexion were present; there were, therefore, no indications at that period for dilating the os uteri and exploring the uterine cavity. But about the end of 1886 there was a rapid change for the worse in her general condition, and it was then probably that the carcinomatous tumour began to grow. The body of the uterus had increased in size, and become very tender; it was firmly fixed in the pouch of Douglas, and any attempt to introduce the sound, or replace it in any other way, caused the most acute pain. The uterine neck was bent at an acute angle upon the body, and could not be straightened. Under such circumstances the introduction of tents to dilate the canal of the cervix would probably have given rise to very serious symptoms. I, therefore, contented myself with the use of injections and other palliative treatment. The same kind of treatment was carried out by those who saw her subsequently in London; and I feel convinced that at that time, judging from the state of the uterus after death, it would have been impossible to have removed any considerable part of the tumour by the curette. The bend in the uterine neck, even after it had been removed from the body, was so great that the canal could not be straightened without tearing the tissues. Dr. Priestley found, when using an

intra-uterine injection, that the bent tube introduced for that purpose when it came in contact with the morbid growth gave rise to such severe hæmorrhage that he could only restrain it by the tampon; and—very wisely, I think—did not attempt any further operation. If he had done so, and had made attempts to remove any portion of the growth, in the weak state the patient then was, she would in all probability have bled to death before it could have been completed.

As the neck of the uterus was normal in its structure, and as the morbid growth was strictly limited to the body, the only operation by which the carcinomatous tumour could have been completely removed would have been by excising the body of the uterus. But such an operation in a person of the patient's age and enfeebled condition would most certainly have been attended with a fatal result, and was, therefore, out of the question.

Mr. Lawson Tait, who is as bold as any man in performing difficult and dangerous operations when there is a fair prospect of a favourable result, speaks in the following terms of removing the uterus for cancer:—

"The proposal to deal with cancer of the uterus by complete removal of the organ meets, I need hardly add, with my strong disapproval. My reasons are, that its primary mortality must always be heavy; and that the few cases in which the disease does not recur are clearly errors of diagnosis. Further, operations for a disease which gives unjustifiable secondary results have no place in good surgery. . . . As I like my work to be stable, I have always opposed this cutting out of the uterus for cancer; and my first judgment has been confirmed by the results."*

* *Diseases of Women and Abdominal Surgery*, Vol. I., p. 117.

Reviews of Books.

The Extra Pharmacopœia. By WILLIAM MARTINDALE and W. WYNN WESTCOTT, M.B. Sixth Edition. London: H. K. LEWIS. 1890.

This book should be the companion of every medical man. With conciseness and in convenient form, it gives all that the prescriber needs to know of the preparations and therapeutics of the numerous drugs which, still on their trial, are not yet placed in the official list. The doses of all those that have reached that dignified position are given, and in certain instances some information is added about the preparations into which they enter. For the scientific enquirer the references to original investigations are numerous and clear. We were surprised to see urethane amongst the secondary list of drugs of which the authors have had little or no experience. The formulæ of the British Pharmaceutical Conference, 1889, are usefully included. Probably all these will appear in the next Addendum to the British Pharmacopœia, which will doubtless contain most of the drugs and preparations recommended by the Royal College of Physicians and by the committee of the General Medical Council.

All the wealth of information here provided is, by judicious arrangement, crowded into a volume which, notwithstanding successive editions are increasing in bulk, is still a small one; and although the doctor's pocket must be getting tolerably full, we strongly recommend him to get the book and keep it there.

Handbook of Obstetric Nursing. By FRANCIS W. N. HAULTAIN, M.D., and J. HAIG FERGUSON, M.B. Edinburgh: YOUNG J. PENTLAND. 1889.

It seems that this work is not intended so much for the monthly nurse with whom in this neighbourhood we are acquainted, as for the midwife who has the sole charge of an ordinary case of labour.

But for either of these persons the book contains more than is necessary, and so presents an element of danger. It is not that we take much exception to any part of it as a dissertation on the subjects treated; but the midwife who has a trained doctor to whom to appeal will be no better able to go through her work because she has a smattering of knowledge about the development of the decidua, or the various measurements of the fœtal head; and the monthly nurse, learning her business from a book of this kind, yet having to carry out the instructions of various medical attendants, is very likely to produce unpleasant worry by putting the lecturer's particular views about unimportant details against the practice of each doctor whom she meets.

The observations about compression of the uterus in the third stage of labour require some modification after the investigations recorded in the second volume of the Laboratory Reports of the Edinburgh College of Physicians. With this exception, the book under review would form an excellent students' introduction to the practice of midwifery.

We always look for some amusement in a glossary; but here it is almost limited to the definition of bladder, which is described as "The receptacle for the urine,"—a definition which would serve for a breakable utensil provided by art and supplied by ordinary commerce.

The Rheumatic Diseases (so-called), with original suggestions for more clearly defining them. By HUGH LANE, L.R.C.P. Ed., M.R.C.S. Eng., Honorary Physician to the Eastern Dispensary, Bath; and CHARLES J. GRIFFITHS, L.R.C.P. Lond., M.R.C.S. Eng., Resident Medical Officer to the Royal Mineral Water Hospital, Bath. London: J. & A. CHURCHILL. 1890.

We are glad to welcome anything tending to clear away the fog which enshrouds the chaotic region intervening between acute rheumatism on the one hand and acute gout on the other. The immense field of observation afforded by the large collection of chronic rheumatic cases in and around the Bath Mineral Water Hospital has enabled the authors to analyse critically some 1200 cases, and the results of their analysis are given in this book, which is a purely clinical one

and must not be criticised from the point of view of pathology. Four classes of chronic joint-disease are described:—

1. Chronic rheumatism.
2. Chronic rheumatic arthritis.
3. Rheumatoid arthritis.
4. Chronic gout.

And the most characteristic feature of the book is the attempt to differentiate between what is true rheumatoid arthritis and what is not, the main points being epitomised in the following table:—

Rheumatoid Arthritis.	*Rheumatic Arthritis.*
1. Nervous disease due to debilitating causes.	1. Following rheumatism always.
2. Its last stage is osteo-arthritis.	2. Has no connection with it.
3. Symptoms constitutional as well as local.	3. More confined to joints.
4. Joints most used are first affected, smaller joints first, running centripetally. Temporo-maxillary joints often affected. Symmetry of joints affected noticeable.	4. Large joints often first affected, running centrifugally, and chiefly joints attacked in previous acute rheumatism. Temp.-max. joints never affected. Not so often symmetrical.
5. Swelling typical, more or less fusiform, and with appearance of effusion.	5. Swelling as if solid enlargement of normal joint.
6. Deformity varying.	6. Greater tendency to fixation of joints in flexed position. Deformity in fingers is fixation in position of extreme flexion.
7. Anæmia, early and constant.	7. Later, and less intense.
8. Neurotic symptoms, sweating, headache, tingling, numbness, pigmentation of skin, &c.	8. Absent.
9. Rarely subacute attacks.	9. Greater tendency.
10. Heart normal, but rapid in action.	10. Often diseased.
11. Hard rapid pulse.	11. Pulse varies with state of heart.
12. Reflexes normal or subnormal.	12. Increased.
13. Muscular atrophy concurrent with, and often previous to, joint affection, and small muscles chiefly.	13. Muscular atrophy subsequent to joints being affected, often large muscles first.
14. Any age.	14. Adults, and mostly over middle age.

We believe that still more may yet be done in the diagnosis and treatment of these rheumatoid conditions, and that the authors of this book will be called upon for further work in elaborating and improving the volume as subsequent editions are called for.

History and Pathology of Vaccination. By EDGAR M. CROOKSHANK, M.B. Two volumes. Pp. 1076. London: H. K. LEWIS. 1889.

As a specimen of book-making, in the fullest sense of the word, the work before us is a highly favourable example. We can scarcely venture to adjudicate the relative merits of publisher and author in their joint production, so well have both fulfilled their purposes. To the former we are indebted for handsome bindings, exquisite paper, clear and handsome type, and a general get-up which makes the work a sort of *édition de luxe*. To the latter we are indebted for a collation and reprinting of most of the early and historic essays on vaccination and on immediately allied subjects, which must have demanded much industry and a keen interest in the subject. Volume I., entitled "A Critical Inquiry," would more correctly be described as a running commentary on the history of vaccination, with abundant extracts from the writings of others. Volume II. is composed entirely of selected essays, including Jenner's original *Inquiry*, with those of Pearson, Woodville, Loy, Rogers, Birch, Estlin, Ceely and others.

The author is an opponent of vaccination. Now, we are not going to review the work from the point of view of its aims—others more competent have done, and probably will do, this—but we must say something of its methods.

The first peculiarity which strikes us is, that the author shows some want of experience in dealing with scientific memoirs as put forth from eighty to a hundred years ago. In these days of cheap paper and printing, verbosity is neither expensive nor wrong. A writer may now maunder on for pages over the shape of a micrococcus or the peculiarities of a pulse-tracing, and may imagine that, far from being a mere recording machine, he is an experimental philosopher. Such a man would gleefully hack to pieces Newton's *Principia*, and place on the same level the invention of the differential calculus and a discovery of a new aperient. We are very far from saying that the author would be guilty of either sin; but we cannot fail to observe that he expects in Jenner's papers fuller details than scientific men then put into their writings. Jenner's statements are condensed, his sentences are few, the language simple, but they go straight to the point, and at the same time bear the imprint of philosophic observation and study. So highly do we estimate the character of Jenner's work, that we believe we do not unduly depreciate the author's when we say that there is more

scientific originality and philosophic grasp in the first four paragraphs of Jenner's original *Inquiry* than in the whole of the author's contribution to the question.

Suppose we admit that the whole theory of vaccination is founded on error, what about the practice and the facts that have accumulated round it? Even if the theory is nonsense, the facts may be unassailable. Many sound practices have originated on false hypotheses, and this may be one of them.

In this work the facts of vaccination are not disputed: they are simply ignored. Now, it is just the practice that we want discussed. By all means let us go back and work out a truer hypothesis if we can; but, in all seriousness, what is the use, in this practical age, of seeking to demolish the almost unanimous evidence of thousands of competent men by a critical study of the scientific writings of early philosophers?

If the author, before stating his belief in the fallaciousness of vaccination, were to spend six months in a smallpox hospital amidst vaccinated nurses and residents, and vaccinated and unvaccinated patients, and were then to tell us that vaccination was useless, we might put some value on his statement. This is the *crux* of the whole question, and it has not even been approached. In the meantime, while deploring the results which the work may produce in the hands of the thoughtless and the ignorant, we cannot but be grateful to the author for bringing together in so convenient and pleasing a form the most important memoirs dealing with the origin of vaccination.

The Town Dweller. By J. MILNER FOTHERGILL, M.D. London: H. K. LEWIS. 1889.

Dr. B. W. Richardson, who writes the introduction to this posthumous work by Dr. Fothergill, considers that it is an outline of a larger work contemplated by that voluminous writer. However that may be, it is, so far as it goes, complete in itself, and is written in Dr. Fothergill's vigorous and epigrammatic style so familiar to the medical reader.

Those who are acquainted with the wan appearance of many workers in town, condemned to sedentary occupations extending over long hours, will agree with the author about the need of an investigation into the causes which are bringing about the decadence of the town dweller, and will welcome the suggestiveness of this book towards providing the remedies. It deals with the subject under the headings of

"The Town Immigrant;" "His Dwelling;" "His Surroundings;" "The Air he Breathes;" "The Water he Drinks;" "The Food he Eats;" "His Beverages;" "His Work;" "His Amusements;" "His Mind and Body;" "His Progeny."

Evidenced by recent Acts of Parliament, which yet require much simplification, there are indications of an increasing public desire to grapple with the difficulties of the question; and the establishment of committees for the consideration of the better housing of the poor, and the recognition of the healthiness of permanent open spaces, are among the more hopeful of these.

Dr. Fothergill's small book has much that is useful for both rich and poor, and we hope our readers will study it for themselves.

Wanderings in Search of Health. By H. COUPLAND TAYLOR, M.D. Pp. 259. London: H. K. LEWIS. 1890.

If the natural inference from Sir Philip Sidney's remark, "All is but lip wisdom that wants experience," be permissible in respect of the work before us, we ought to derive much benefit from its perusal. The author has a most extensive personal experience of health-resorts all over the world. He writes with transparent fairness and fearlessness, handling his facts with sound judgment, and presenting them with sufficient fulness. Such a work must be of great value to those of us who are stay-at-homes; and desire, in advising our patients, to steer a safe course between the "booming" of health-resorts by interested hotel-keepers and companies, and the peevish pessimism of the literary valetudinarian. The work is most interesting to read, as well as valuable to study.

Insomnia and its Therapeutics. By A. W. MACFARLANE, M.D. Pp. 366. London: H. K. LEWIS. 1890.

This is a charmingly-written work, showing evidence of wide and close thinking, and a very varied and extensive knowledge of medicine. The author has evidently read much and to good purpose. The work is thorough in the fullest sense—in the ground it covers, in the exhaustiveness of its treatment, and in the soundness and resource of its therapeutics. It is the best monograph on the subject of sleeplessness which we have seen.

Transactions of the Intercolonial Medical Congress of Australasia. Second Session. January, 1889. Melbourne: STILLWELL & Co.

Our Australasian brethren have, in this bulky volume of over 1,000 pages, presented us with a series of papers on Medicine and Surgery which are worthy of being placed on a level with some of the most valued archives of our art. Pre-eminent in value are the papers and discussions on Hydatid Disease: these must in future be regarded as landmarks in our study of the subject. The section on Hygiene also was particularly fruitful of good work. The *Transactions* are worthy of the highest praise, and reflect credit on all concerned.

Children's Deformities. By WALTER PYE, F.R.C.S. Pp. 216. Bristol: WRIGHT & Co. No date. (Preface, 1889.)

The first thing one does in looking over a book is to read the preface, and then look at the table of contents and the index. We happened, at the moment, to be interested in hypospadias, and we looked for it—it does not appear: then we sought epispadias and extroversion of the bladder—these also are absent. Then we turned to the contents, and after a perplexing study of a most heterogeneous arrangement of subjects, we read the book; and we have come to the conclusion that it is a very ordinary one, neither good nor bad, but—meriting the third epithet.

A man may be a very good practical surgeon, doing work up to the highest standard; but before he writes a book aiming at the instruction of others, he ought to read *at first hand* the original essays of the authors he quotes. And his selection of methods ought not to be merely casual, but should always have reference to accredited authority, even if it is not the author's. The author has done better work than this.

A Contribution to the Surgery of the Spinal Cord. By W. THORBURN, B.S., M.D., F.R.C.S. Pp. 230. London: C. GRIFFIN & Co. 1889.

A young surgeon can scarcely do better work than this; namely, to collate all the clinical experience within his reach bearing on an imperfectly worked-out subject, and by the light of this, and full theoretical knowledge, try to formulate new conclusions or to confirm old beliefs. The author has

fully succeeded in the task he has set himself; and has provided us with a most thorough and exhaustive work on spinal surgery. He is fully acquainted with all the latest researches on spinal physiology and pathology, and has most fully and carefully applied his knowledge to the numerous cases collected and recorded by him. We gladly acknowledge our indebtedness to the author for his valuable and suggestive treatise; and have great pleasure in recommending it to our readers.

Spinal Concussion. By S. N. CLEVENGER, M.D. Pp. 338. Philadelphia and London: F. A. DAVIS. 1889.

There are certain features about this work which strike us as peculiar. Firstly, the author tells us that "the treatises now in use are twenty years behind the times." Now, Herbert Page, of St. Mary's Hospital, in 1881 got the Boylston Prize of Harvard University for his treatise on this very subject; and he has not even been twenty years in the profession: he must be a very *backward* writer! Then our author describes himself as a "member of numerous American scientific and medical societies," while he dates his preface from "Central Music Hall, Chicago." The combination of much science in harmony has long ago been reckoned as music; and we welcome the reappearance of the principle in Chicago. But bad English is not musical; and when on the first page we meet with bad grammar, bad spelling, and wrong quotations, our enthusiasm is somewhat damped. But as we go on our bad impressions are modified, and here and there replaced by good ones.

The work is distinctly worth reading. It is frankly and strongly polemical. The bent of the main arguments is sufficiently shown by his suggestion that a certain symptom group resulting from spinal injury should be known as "Erichsen's Disease." The author has evidently fully studied his subject at the bedside, as well as in books; and if, here and there, his language seems to be somewhat more emphatic than the facts warrant, we cannot but admit that he has a large balance of right on his side. He vigorously attacks and demolishes loose theories and crude statements; and supports his own position with much external aid and considerable internal resource. The work will help to clear away some of the mist in which traumatic spinal pathology is enveloped, and may lead us a little nearer to definiteness and cohesion in our knowledge of a class of injuries which at present is both indefinite and chaotic.

Notes on Preparations for the Sick.

Kolatina.—T. Christy & Co., London.

The kola nut does not appear to be as well known as it deserves. In comparison with coffee, tea, and cocoa, it takes the first place as regards the amount of nitrogenous matter chemically defined and crystallisable. The amount of caffeine is 2.348 per cent., whereas coffee contains only 2.25. It appears to have the stimulating qualities of tea and coffee, but does not give rise to any digestive disturbance; it may therefore be taken by those who are unable to take either tea or coffee, and will be found to serve as a palatable and efficient substitute.

Liquor Ouabain.—T. Christy & Co., London.

Each drachm contains one-fifth of a milligramme, and this dose may be given three or four times daily.

Ouabain is the active principle of an arrow-poison used by the natives of Obock. It acts powerfully on the respiratory centres. Prof. M. E. Gley, of Paris, found that the principal effects of $\frac{1}{10}$th of a grain of ouabain on a dog were: marked slowing of the respirations, without much cardiac disturbance, lasting for a few minutes after the injection, and then ceasing. Larger doses first quickened respiration and then caused it gradually to get slower, until it ceased completely, the heart's pulsations continuing for several minutes afterwards. In the case where artificial respiration was used, the respirations were maintained as well as the heart's beats.

It has been suggested that ouabain would prove useful in asthma, pertussis, and heart disease (see *Medical Annual*, 1889, p. 56); and on this subject Prof. Gley writes: "I do not know of the use of ouabain in asthma and pertussis, but from my physiological experience it might prove to act favourably in asthma."

Like strophanthine, it has the property of arresting the frog's heart: the injection of even so small a quantity of

crystallised ouabain as $\frac{1}{80}$th of a milligramme stops the heart in eight or nine minutes.

We have used ouabain in a few cases of pertussis with gratifying results, but our experience of this drug is mainly in cardiac affections. Ouabain is a pure heart-tonic, and does not appear to affect arterial tension. It is therefore indicated when we desire to stimulate the heart without raising the general arterial tension. In certain cases of organic heart disease attended with cardiac neuralgia, the relief was most marked and very quickly obtained. Ouabain may be given with advantage for functional palpitation of the heart, associated with dyspepsia.

The extremely poisonous properties of this drug must be borne in mind in prescribing it. For this reason only the active principle should be used, as in the standardised preparation of Messrs. Christy & Co.

Salt Regal.—THE SALT REGAL COMPANY, Liverpool.

The demand for salines, fed by the constant advertising of the same, never flags. It has recently been said that the English are a nation of pill-takers: it may equally be said that they revel in salines. If they must take something, we prefer the saline to the pill as being more pleasant and less harmful. Whether salines and longevity are necessarily associated as cause and effect may be open to question; but certainly these salines, if poisons, are very slow in action. But there appear to be fashions in salines as in most earthly matters; and the newest fashion is to combine a little antiseptic with a palatable effervescent, giving an ingenious combination, in the form of a white powder, which when mixed with water effervesces freely, and assumes the tint of a weak permanganate solution. It is an elegant preparation, pleasing to the fancy as well as to the eye, and withal thoroughly efficient as an aperient.

Toilet Lanoline.—BURROUGHS, WELLCOME, & Co., London.

Lanoline has decidedly established itself as a thing which means to stay. This particular form of it is an emollient, soothing application for irritable skins, useful for chapped lips and hands, abrasions, and eruptions of many kinds. In a thin layer over a wound it forms an efficient protective, as it has been shown by Professor Gottstein that such a layer

of lanoline forms an impassable barrier to disease-germs. The preparation is elegantly perfumed, and conveniently mounted in collapsible tubes.

Vinolia Soap.—BLONDEAU & CIE., London.

Vinolia appears to have established for itself a wide reputation and great range of utility; and the Vinolia Soap, superfatted, is one of its most useful combinations. An analysis of this soap gives the following result:

Free alkali	0.00
Combined alkali	9.17
Fatty anhydrides	74.51
Free fat	3.81
Scent, water, &c.	12.51
	100.00

The irritating effects of many ordinary soaps on sensitive skins are well recognised, and hence the necessity for caution against the use of any soap in inflammatory forms of skin disease. Such a caution appears to be unnecessary if a superfatted soap like the above-mentioned be employed. The entire absence of excess of alkali, and the presence of unsaponified cream, prevent any deleterious action upon the skin. It is the most perfect soap we have ever had the pleasure to employ, and may safely be used where other soaps would be injurious.

PERISCOPE.

MEDICINE.

A Case of Erysipelatous Broncho-pneumonia without External Erysipelas.—M. Brouardel reports this case of broncho-pneumonia, which, as will be seen below, was clearly of erysipelatous nature. A woman of thirty-seven, who had nursed her master, suffering from facial erysipelas, since December 22nd, was taken with rigors and a pain in the side on December 23rd, admitted December 24th with pneumonia at the base of the right lung, and died on the evening of December 25th. She showed no trace of erysipelas on the mucous or cutaneous surfaces. At the autopsy a very limited patch of broncho-pneumonia, with the usual anatomical characters, was found. Bacteriological examination of scrapings of the exudation, and of sections stained by Gram's method, demonstrated the strepto-coccus of erysipelas. Characteristic colonies of the strepto-coccus were obtained by cultures, unmixed with any other organism. Injection of three drops of a culture underneath the skin of a rabbit's ear produced a typical attack of erysipelas in the animal, from which it recovered with the formation of an abscess. M. Brouardel believes that is the first case in which the erysipelatous origin of a broncho-pneumonia has been conclusively demonstrated.—*Gazette des hôpitaux*, February 13th, 1890. J. M. C.

Varieties of Angina Pectoris.—M. Rendu reports the case of a man who suffered from attacks of angina pectoris and had signs of aortic valve disease, but in whom the symptoms did not indicate extensive damage to the valves. The symptoms, though they resembled, did not altogether correspond to, those of true angina; and in his remarks on the case M. Rendu says that he believes the group of symptoms characterising true angina may result from a simple neuralgia, from the effects of tobacco, of some poison, or even of dysmenorrhœa. He thinks that cases of angina pectoris may be placed in one of two groups: (1) those in which the angina is symptomatic of an organic lesion, *e.g.* atheroma of coronary arteries, or of a neuritis of the cardiac plexus; and (2) those in which anginal

attacks form part of a neurosis, *e.g.* in Graves' disease. In the latter, the symptoms are more alarming than dangerous, and may be distinguished from attacks of genuine angina by the following characteristics:

(1) Attacks frequently nocturnal, and without exciting cause.

(2) Often preceded by an aura, of longer or shorter duration, from the periphery.

(3) Pain diffused over a wider area, with often intense cutaneous hyperæsthesia over præcordial area, resembling an hysterogenous zone.

(4) Accompanied by violent and not by lessened heart-beats, by sighing but not interrupted respiration, and sometimes by actual loss of consciousness.

(5) The attacks are more frequent than in the true form. The diagnosis between them may, however, be very difficult when aortic disease co-exists with the neuropathic state.—*Gazette des hôpitaux*, January 2nd, 1890. J. M. C.

The Differential Diagnosis between Simple and Tubercular Broncho-pneumonia in Children.—M. Hutinel attaches weight to the following considerations:

In tubercular broncho-pneumonia, onset is more insidious. Dyspnœa is excessive; that is to say, it is greater than the auscultatory and other physical signs of consolidation would lead us to expect. There are perhaps a few scattered râles to be heard, with a small patch of deficient resonance; and yet, with these slight signs, there may be 50—60 respirations to the minute, and marked cyanosis. Speaking generally, the auscultatory signs are more prominent in simple inflammatory broncho-pneumonia.

As to the localisation of the mischief, the apices are far less frequently affected in children than in adults. In children under the age of six to seven, it is rare to find tubercular consolidation limited to the apices. On the other hand, a simple broncho-pneumonia may affect the apex, and a tubercular the base only, of the lung. The temperature gives no certain indications; but in the tubercular variety temperature and pulse often do not correspond. The pulse may be 140—150 beats to the minute, and the temperature 100°; or the temperature may be high and the pulse slow.

Convulsions have little significance, unless there be in addition other symptoms of meningitis present. Evidence of presence of tubercle in other organs must be carefully sought for. Often the diagnosis can only be certainly made by watching the general course of the malady; in the tuber-

cular cases, of course, normal resolution does not show itself: from time to time the auscultatory signs may indeed improve, but only to be succeeded by fresh mischief, while the general condition of the little patient deteriorates.—*Gazette des hôpitaux*, January 30th, 1890. J. M C.

Morvan's Disease.—A lecture of Professor Charcot's is devoted to the consideration of a disease to which Dr. Morvan, of Brittany, first drew attention in 1883. The disease affects the upper extremities, and the chief symptoms are: (1) neuralgic pains; (2) paresis, with analgesia, first on one side, then on both; (3) the appearance later on of whitlows. Sometimes paresis and analgesia come before the pains; there are often other trophic disturbances, and in some cases these, with the presence of whitlows, are the only symptoms, paresis and analgesia being absent. In typical cases there are, first, neuralgic pains; then paresis, with more or less muscular atrophy in the hand and forearm; and, finally, loss of sensation to touch, pain, and temperature, generally affecting the hand, forearm, and part of the arm, but sometimes spreading over the whole of the upper extremity. The whitlows appear later. There is always necrosis of the bones, most commonly of the last phalanx, and characteristic deformations are thus produced. There may be as many as seven, eight, or nine whitlows, scattered over a long period of time (twelve to forty years). Generally there is no pain with these whitlows; but those that appear first may be painful, those that come later never are. Other trophic disturbances are, deep fissures of the skin, and a sort of perforating ulcer of the hand, which may open up the sheaths of the tendons and cause suppuration in them. The nails fall off or become much deformed. The hand becomes livid, its temperature is sub-normal, and it may be subject to excessive sweating. The lower extremities are very rarely affected; there is often scoliosis of the vertebral column.

The duration of the disease is long—ten, fifteen, twenty years, or more. The etiology is unknown: so far, men seem to be affected more often than women; it may come on at any age.

The maladies from which the diagnosis is most difficult are, scleroderma, anæsthetic leprosy, and syringomyelia.—*Le Progrès médical*, March 15th, 1890. J. M. C.

The Difference between "Specific" and "Non-specific" Diseases.—Professor Bouchard reviews the theories formerly held on this subject, and shows that they do not meet the facts of the case. It has been held in recent

years that contagiousness and the power of conferring immunity from fresh attacks are the two most distinctive properties of specific diseases. But although this is true of the extreme cases, it will not hold good for all the variations and degrees of severity of so-called specific diseases. As shown by culture and inoculation-experiments, the property of contagiousness may spontaneously diminish or even disappear, whilst under certain conditions non-specific diseases become contagious.

Professor Bouchard considers that the only difference between specific and non-specific diseases lies in the different character of the microbes to which they are due: those which produce the latter diseases are constantly in us or upon us, as a sort of parasite; but under ordinary conditions we are completely protected from them. When, however, they gain, by some means, admittance into the blood-circulation, they produce morbid reaction. There is, for instance, a diplococcus generally present in the buccal secretions of man which is fatal to mice in twenty-four hours. On the other hand, in the specific diseases the germs are never found about us under normal conditions: in these the presence of the microbe is everything, and the condition of the soil on which it grows is of minor importance; the organism, even when in good health, is without defence against these germs. In the non-specific diseases, there is nothing to fear from the microbes if the organism is in healthy condition; they cannot then produce their morbific effects.—*L' Union médicale*, April 17th, 1890. J. M. C.

Centripetal Venous Pulse.—This pulse, which receives also the name of "ascending venous pulse," is that observed in the superficial veins of the arms, and is but very seldom seen. Quincke, however, does not believe it to be so rare as represented, and states that he has seen it many times. The principal condition necessary for its appearance is relaxation of the blood-vessels, more especially of the arteries; but it requires also dilatation of capillaries and veins, as that which accompanies certain stages of fevers where there are sudden crises with sweating. Thus he has seen it in typhoid, relapsing, intermittent, pyæmia, polyarthritis rheumatica, pneumonia, phthisis and gall-stones. Nervous influence might be present along with fever in cases of meningitis, spondylitis, encephalo-malacia and cervical injuries. It may be observed, likewise, in apyretic states, chlorosis, traumatic anæmia and cancer, as well as in the healthy if the summer-heat has induced relaxation of the peripheral vessels. The phenomenon is observed only on the

back of the hand and forearm; but once only did Quincke see it in the veins of the dorsum of the foot. Besides the above, other conditions are essential—softness of the skin, powerful heart's action producing a sufficiently high pulse-wave and a certain medium degree of filling of the veins: the pulse easily disappears, mere change of position being sufficient to efface it. The presence of a centripetal venous pulse does not necessarily indicate that a capillary pulse must also be visible: perhaps a direct continuity of artery and vein may explain this. The transmission of the pulse-wave into the veins is the more likely, the greater the pressure-difference between the cardiac systole and diastole. In the extreme arterial relaxation of the later stages of fever this is most marked, as also in aortic regurgitation. It may be favoured, moreover, by arterio-sclerosis (Senator), and retarded by venous stagnation (Holz). For the occurrence of the visible capillary pulse and the centripetal venous pulse we have, in common, the height and rapidity of the pulse-wave, and, in addition, there is necessary for the latter extensive relaxation of the large arteries and veins.—*Berliner klinische Wochenschrift*, No. 12, 1890. D. R. P.

The so-called "Nona."—Dr. Tranjen, of Sistow (Bulgaria), records two cases observed during the month of April, the symptoms of which suggested the condition of which much has been heard of in the lay papers under the name of "Nona." The first was a child two years old, of healthy family, seen in the third week of illness. It appeared to be asleep. It moaned now and then, and cried and grasped its head; and was said to have been in that state for three weeks. It could be readily awakened and induced to take bread-and-milk: often it awoke of its own accord and called for water. The bowels were constipated, and had no motion without castor oil. For urination the child woke up. The little patient was well-formed; and lay on its side, with the head thrown back. The large fontanelle was closed; the pupils equal, dilated, and reacting slowly to light; the tongue coated; and the abdomen retracted. There was no rash, no splenic enlargement, and no discoverable organic disease. The temperature did not rise above 101°, and the pulse and respiration were apparently normal. This condition lasted sixteen days; then coma set in, and death two days later.

The other instance was that of a ten-year-old anæmic and emaciated girl. Her parents were healthy. She died, with symptoms similar to the other, after seven days' illness. In January she had influenza for three weeks. In

April she fell into a sleepy state, with fever and constipation, retracted abdomen, coated tongue, head drawn back, and pupils unequal, dilated, and reacting slowly. She awoke occasionally and drank something, embraced her mother, and then fell asleep again. She did not speak nor ask for anything. Shortly before death, slight trismus set in. The temperature was no higher than 100.5°, and the pulse and respiration not abnormal.

These two cases reminded the writer of a soldier who died, after ten days' illness, with the same symptoms, during the influenza epidemic in January. The *post mortem* examination showed well-marked hyperæmia of the meninges, an œdematous condition of the brain, but no exudation.

Tranjen looks upon these cases as infectious cerebro-spinal meningitis. The signs of irritation were very few, and the prominence of the drowsiness would impress a lay mind very much. The sleep, abnormal in its duration for days and weeks, was otherwise physiological. Clinically and pathologically, the condition was none other than a cerebro-spinal meningitis running an unusual course, and resembling pneumonia very much in its relation to influenza.—*Berliner klinische Wochenschrift*, No. 22, 1890. D. R. P.

THERAPEUTICS.

Alkaloids of Cod-liver Oil.—Mm. Gautier et Morgues. The beneficial action of cod-liver oil is due to three principal factors:

(1) Fats, which are easily assimilated, on account of their partial saponification, the small amount of fatty acids present, and the presence of bile salts, which render their emulsification extremely easy, even without the aid of the digestive ferments. If cod-liver oil is shaken up with water containing a trace of alkali, or of an alkaline carbonate, a very fine emulsion is formed. To these fats a large share of the efficacy of the oil is due.

(2) The oil is rich in phosphates, phosphoric acid, lecithin and phosphorus in organic combination; the last form is the most readily assimilated. There is also a small quantity of iodine and bromine.

(3) Alkaloids, of which there are a great number; butylamine, amylamine, morrhuine and morrhuic acid. These are nerve stimulants, render more active the nutritive processes, increase the amount of urine and sweat, and at the same time promote appetite. Some among these, notably amylamine, are, in large doses, powerful poisons: the latter, in

smaller doses, increases reflex action and produces convulsive tremblings; in the feeble doses in ordinary use, they merely stimulate the nutritive functions.—*Gazette des hôpitaux*, February 6th, 1890. J. M. C.

Chloralamide.—M. Bilhaut, in a paper on this hypnotic, concludes that chloralamide is an efficient hypnotic; and, since it has no injurious action on the heart or kidneys, may be used in patients who suffer from heart-disease or albuminuria. It does not lose its effect when given every other night regularly for ten weeks. Its narcotising properties are not destroyed when it is dissolved in boiling water. The dose is from 30—75 grains, given at bedtime in one dose.—*Le Progrès médical*, February 1st, 1890. J. M. C.

Orexin.—Prof. Penzoldt has recently introduced, as a stomachic tonic, a substance to which he has given the name of orexin. It is one of the phenol derivatives, the chloride of the substance being readily soluble. In experiments, an early sensation of hunger was produced, and this action was found useful in the diminished appetite of phthisis and in anœrexia after severe operations. The drug was given in the form of gelatinised pill, in doses of 5 to 8 grains daily. Glückziegel has tested it in 17 patients suffering from various affections. In the majority of those the result was satisfactory; in three there was no effect on the appetite, vomiting occurring in one case, and pain across the stomach in another. On the other hand, Imrédy had not so much success. The drug was not well borne, produced an inclination to vomit, and increased the appetite only in seven out of eleven cases, the other four remaining without any action.—*Therapeutische Monatshefte*, Nos. 2 and 5, 1890. D. R. P.

Pyo-etanin.—This name has been given by Merck to a new preparation from the aniline dyes. He has introduced it as a disinfectant and dressing, suggested by the observations of Stilling and Wortmann. Stilling has found that methyl violet, free from arsenic, restrains the growth of germ cultures in a solution of 1 to 30,000, and destroys them at a strength of 1 to 10,000. Injurious effects were not seen in trials on animals, and the practical results, which were obtained first of all in some eye diseases and suppurating wounds of different kinds, were very satisfactory. The drug is used in the form of a powder dusted over the parts, and as readily soluble pastilles, pencils and ointments; and dressings are impregnated with it. The very intense colour, which is a drawback, can be easily destroyed by spirit or mineral acids. —*Berliner klinische Wochenschrift*, No. 22, 1890. D. R. P.

THE

WILLIAM F. JENKS MEMORIAL PRIZE.

The Second Triennial Prize, of Four Hundred and Fifty Dollars, under the Deed of Trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on

"THE SYMPTOMATOLOGY AND TREATMENT OF THE NERVOUS DISORDERS FOLLOWING THE ACUTE INFECTIOUS DISEASES OF INFANCY AND CHILDHOOD."

THE conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the Trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said Trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U.S.A., before January 1st, 1892, addressed to Louis Starr, M.D., Chairman of the William F. Jenks Prize Committee.

Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

Out of Season.—Le docteur B—, un de nos médicins légistes les plus éminents, a une antipathie passionnée, féroce, pour le piano. Dernièrement il dînait en ville. Après le dessert, concert improvisé. Un pianiste s'escrime avec ardeur. "L'abominable animal!" gronde le docteur à l'oreille de son voisin. "Que voulez-vous, cher ami, c'est son métier." "Son métier, belle raison! Est-ce que je vais faire des autopsies dans les salons, moi?"—*L'Union médicale.*

The Doctor and his Journal.—We believe that a first duty of the medical man is to help develop, foster, and sustain the medical societies and medical interest of his own locality. He has power personally to stimulate his associates, and to aid them in organization and in medical progress. In the development of such local interests, nothing can be so helpful as the ably-conducted and well-supported local medical journal. To this he owes a primary obligation, both literary and pecuniary. Its pages should be replete with the recorded experiences of local contributors; while, in turn, it should garner for them the best of medical productions from all lands.—*The Journal of the American Medical Association.*

Imaginary Illness.—Nothing more amusing has been written on this subject than the following by Mr. Jerome K. Jerome in his clever *Three Men in a Boat*:

"I had just been reading a patent liver-pill circular, in which were detailed the various symptoms by which a man could tell when his liver was out of order. I had them all.

"It is a most extraordinary thing, but I never read a patent medicine advertisement without being impelled to the conclusion that I am suffering from the particular disease therein dealt with in its most virulent form. The diagnosis seems in every case to correspond exactly with all the sensations that I have ever felt. I remember going to the British Museum one day to read up the treatment for some slight ailment of which I had a touch—hay fever, I fancy it was. I got down the book, and read all I came to read; and then, in an unthinking moment, I idly turned the leaves, and began to indolently study diseases generally. I forget which was the first distemper I plunged into—some fearful, devastating scourge, I know—and, before I had glanced half down the list of 'premonitory symptoms,' it was borne in upon me that I had fairly got it.

"I sat for awhile, frozen with horror; and then in the listlessness of despair, I again turned over the pages. I came to typhoid fever—read the symptoms—discovered that I had typhoid fever, must have had it for months without knowing it—wondered what else I had got; turned up St. Vitus's Dance—found, as I expected, that I had that too,—began to get interested in my case, and determined to sift it to the bottom, and so started alphabetically—read up ague, and learnt that I was sickening for it, and that the acute stage would commence in about another fortnight. Bright's disease, I was relieved to find, I had only in a modified form, and, so far as that was concerned, I might live for years. Cholera I had, with severe complications; and diphtheria I seemed to have been born with. I plodded conscientiously through the twenty-six letters, and the only malady I could conclude I had not got was housemaid's knee.

"I felt rather hurt about this at first; it seemed somehow to be a sort of slight. Why hadn't I got housemaid's knee? Why this invidious reservation? After a while, however, less grasping feelings prevailed. I reflected that I had every other known malady in the pharmacology (*sic*), and I grew less selfish, and determined to do without housemaid's knee. Gout, in its most malignant stage, it would appear, had seized me without my being aware of it; and zymosis I had evidently been suffering with from boyhood. There were no more diseases after zymosis, so I concluded there was nothing else the matter with me.

"I sat and pondered. I thought what an interesting case I must be from a medical point of view, what an acquisition I should be to a class! Students would have no need 'to walk the hospitals,' if they had me. I was a hospital in myself. All they need do would be to walk round me, and, after that, take their diploma.

"Then I wondered how long I had to live. I tried to examine myself. I felt my pulse. I could not at first feel any pulse at all. Then, all of a sudden, it seemed to start off. I pulled out my watch and timed it. I made it a hundred and forty-seven to the minute. I tried to feel my heart. I could not feel my heart. It had stopped beating. I have since been induced to come to the opinion that it must have been there all the time, and must have been beating, but I cannot account for it. I patted myself all over my front, from what I call my waist up to my head, and I went a bit round each side, and a little way up the back. But I could not feel or hear anything. I tried to look at my tongue. I stuck it out as far as ever it would go, and I shut one eye, and tried to examine it with the other. I could only see the tip, and the only thing that I could gain from that was to feel more certain than before that I had scarlet fever.

"I had walked into that reading-room a happy, healthy man. I crawled out a decrepit wreck.

"I went to my medical man. He is an old chum of mine, and feels my pulse, and looks at my tongue, and talks about the weather, all for nothing, when I fancy I 'm ill; so I thought I would do him a good turn by going to him now. 'What a doctor wants,' I said, 'is practice. He shall have me. He will get more practice out of me than out of seventeen hundred of your ordinary, commonplace patients, with only one or two diseases each.'

* * * * *

"Going back to the liver-pill circular, I had the symptoms, beyond all mistake, the chief among them being 'a general disinclination to work of any kind.' What I suffer in that way no tongue can tell. From my earliest infancy I have been a martyr to it. As a boy, the disease hardly ever left me for a day. They did not know, then, that it was my liver. Medical science was in a far less advanced state than now, and they used to put it down to laziness."